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NAVAL BILLETS ⁹⁷⁹ for JUNIOR OFFICERS

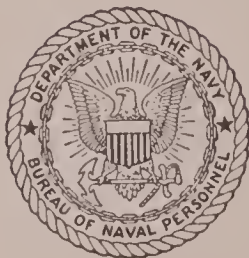
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NAVAL BILLETS FOR JUNIOR OFFICERS



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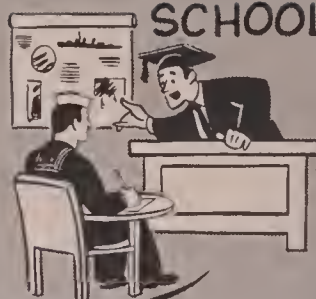
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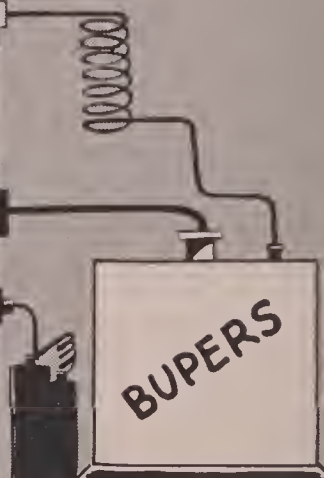
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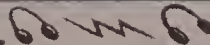
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MINE WARFARE

MOTOR TORPEDO BOATS

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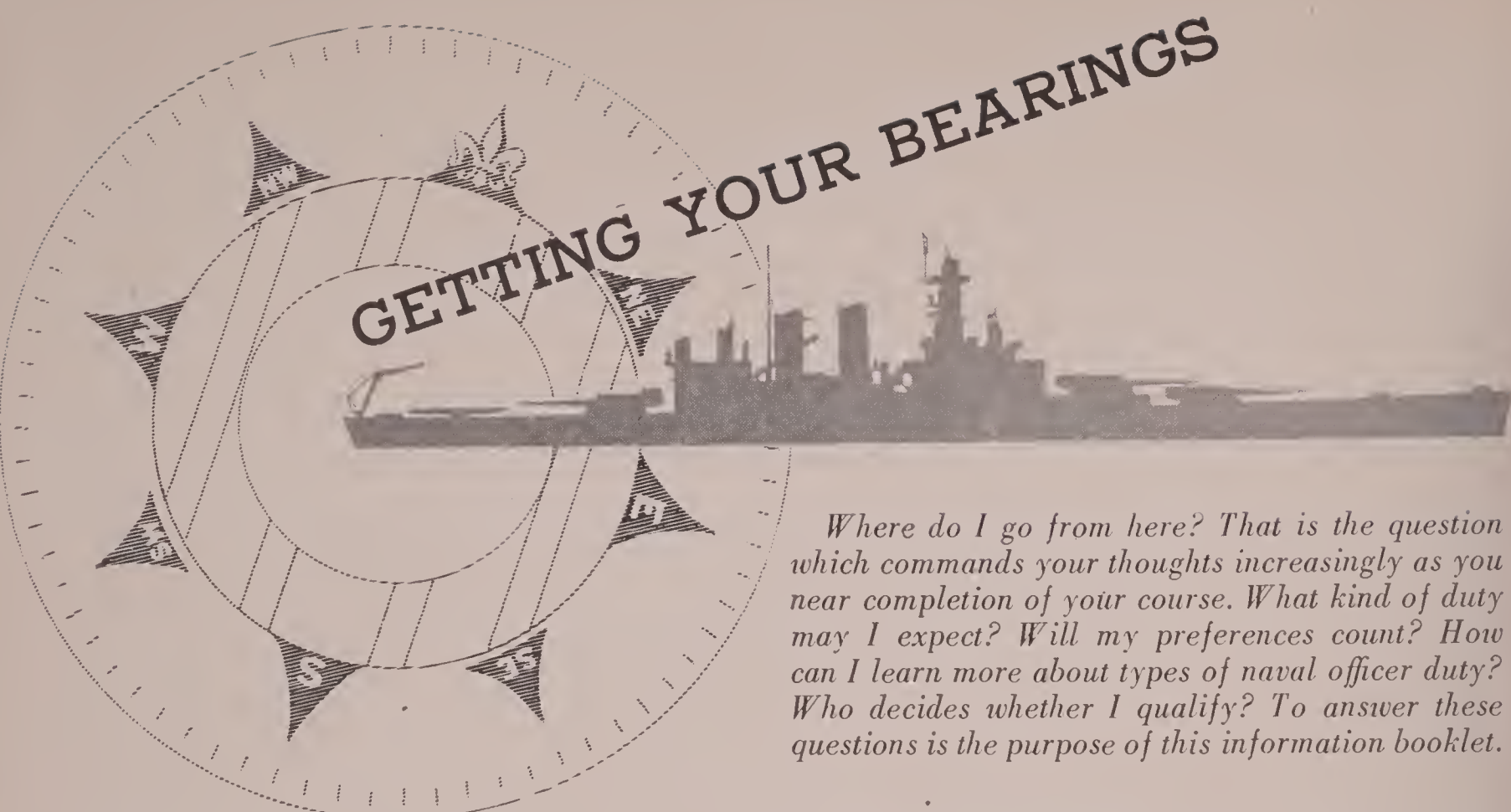
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GETTING YOUR BEARINGS

Where do I go from here? That is the question which commands your thoughts increasingly as you near completion of your course. What kind of duty may I expect? Will my preferences count? How can I learn more about types of naval officer duty? Who decides whether I qualify? To answer these questions is the purpose of this information booklet.

Where do I go from here?

You will be sent direct to a ship or forward area, to a pre-commissioning center, or to an advanced naval training school for additional training. Some advanced training schools prepare officers for general line duty; others concentrate upon a specialty.

What kind of duty may I expect?

The answer to this one depends largely upon what month of what year you complete your course. One thing is certain—the great majority of your class will be sent to sea. As to type of ship or kind of billet—remember that the needs of the Navy are shifting constantly. It is erroneous to assume that the duties to which you and your classmates are assigned will necessarily parallel those of the last class. An officer with your identical qualifications who graduated six months ago may have been assigned duty for which there is no longer a live quota. *The Navy does not pretend to place you in the billet for which you are most ideally suited. It does make an effort to assign you to the most suitable duty for which there is a current need.* In return, it is expected that whatever the assignment, you will fulfill your oath to serve to the best of your ability.

You'll get your best cue to most likely types of duty through the billet lecture given by the Commanding Officer or the Interviewing

Officer of your school. It is important that you do serious thinking about your preferences among the billets represented in the quota for your class. Don't waste ammunition aiming at targets beyond effective range!

Does my duty preference count?

Yes. It is assumed that an officer who is to be entrusted with shipboard responsibilities is capable of making an intelligent contribution to the selection of his proper place in the Navy. The Bureau of Naval Personnel is primarily concerned with detailing you to the right billet. To assist in this effort, trained Interviewing Officers are located at most primary and advanced naval training centers to review your background, administer tests, give billet information, and interview you personally. These officers recommend appropriate duty through your Commanding Officer to the Bureau of Naval Personnel. The Bureau honors the recommendations within limits permitted by quotas and by shifting requirements. Your orders follow. This arrangement makes it impossible for anyone to promise anything. It is clear, however, that the system is in your favor.

To help yourself and to help the Navy, it is good sense to become as familiar as possible with the nature of naval officer duties included in current quotas. You will be asked to state several preferences. Analyze your own capacities and interests in terms of the stated re-

quirements of the various types of billet. Avoid being romantic about yourself or the duty. Do not rely upon a persuasive personality to influence the judgment of the Interviewing Officer. He is more concerned with your educational and occupational history, your test scores, naval school marks, and the opinions of staff officers about your officer qualities. Your billet choice must be reasonable in terms of your background and potentialities if it is to be considered seriously.

Your original assignment to duty is not necessarily permanent. It is possible that current needs may require your assignment in some capacity foreign to your talents and interests. The option of requesting a change of duty through regular channels is always open to every naval officer.

Where can I get information about officer billets?

This booklet sketches some highlights of the more common junior officer assignments. In addition, many primary naval training schools conduct planned programs to promote your understanding of officer billets by using motion pictures, lectures, and group meetings. Don't miss these.

It is advisable to consider your immediate naval future from two points of view: first, from the standpoint of a specialty (Communications, CIC, Recognition, etc.); second, in terms of ship type. The early pages of this booklet deal with the more common junior officer specialties and give a brief description of the requirements of each. A second portion of the booklet describes the nature of duty aboard the more common ship and craft types without regard to specialty. A third section deals with volunteer billets, which call for special qualities and high devotion to duty. The fourth and last section sketches miscellaneous billets open to the occasional officer who has outstanding qualifications, who is ineligible for sea duty, or who may become eligible for reassignment.

One last word of advice. Your friends and acquaintances in the Navy will be eager to talk to you about types of duty. But few naval officers are well enough acquainted with current quotas or billet requirements to give you sound advice. Their opinions are frequently biased unintentionally by their keen enthusiasm for the duty in which they have served.



JUNIOR OFFICER SPECIALTIES*

Quotas are usually given to primary naval training schools for certain officers to be sent to advanced training. This section gives a brief description of the more common junior officer specialties for which advanced schools train. Discover what advanced training school quotas are available to members of your class, then study the information contained in this section to discover whether your qualifications and interests entitle you to consideration. Your Interviewing Officer knows the selection requirements which control admissions to advanced schools. If you meet the requirements, you may be recommended for specialty training.

A common misconception among newly commissioned officers is that full time aboard ship is devoted to one's specialty. Rarely is this true. Normally, the junior officer may expect to stand one watch in three, perform collateral duties when not on watch, and devote the time remaining to his field of specialization.

* Officer specialties outlined in this section relate primarily to duty aboard destroyers. Much of the material is extracted from *Selection Requirements Manual For Destroyer Billets*. Other specialties covered relate only to large ships.



Communication Watch.—The science of communicating at sea has been revolutionized. Officers who serve in the Communication Division must keep abreast of new developments and be quick to distinguish the urgent from the routine.

NAVIGATION AND COMMUNICATION SPECIALTIES

A number of officer specialties are in the Navigation Department and Communication Division. The importance of such specialties to a modern naval force is traceable to inventions of recent decades—the electric light, radio, telephone, telegraph, sound and electronic search apparatus.

These have revolutionized the science of communicating at sea. The barrier of visual range which limited the exchange of information in earlier centuries to sight and sound distance, has been breached. Today, radio enables ships to communicate with other ships and with shore stations across thousands of miles of ocean. Radar and sonic gear perform miracles in locating hidden enemies in the air, on the surface, and beneath the sea. Newer navigational methods amplify the old.

Such innovations have complicated the exchange of intelligence. Intricate equipment now supplements the signal hoist, the hail, and the sharp eye of the lookout. The choice of proper communication medium to be employed, the safeguarding of classified matter, the use of codes and ciphers, keeping abreast of changes in tactical publications, the exchange of proper recognition signals, and the maintenance of technical equipment require capable supervision.

Officers need special training to perform these tasks. The more common navigation and communication billets to which junior officers are assigned are covered in the pages which follow.

NAVIGATION OFFICER

On larger ships of the Navy, the Navigation Officer is a specialist. Because of the variety of duties for which he has responsibility, he usually has an Assistant Navigator assigned to his department. On the smaller ships of the Navy, the duties of the Navigation Officer are performed by the Executive Officer, who, in turn, may designate an Assistant Navigator from among the junior officer complement to

perform the work of a navigator under his supervision.

Generally speaking, there are few opportunities for a newly commissioned junior officer to be assigned to the billet of Navigator or Assistant Navigator. As a matter of practice, however, practically every junior officer assigned to sea duty is required to perform an occasional day's work in navigation.

Under the immediate supervision of the Navigator, an Assistant Navigator is responsible for: (1) continual maintenance of ship's position by navigational fixes (celestial, terrestrial, and electronic means); (2) chart and navigational publication correction; (3) log and record maintenance (4) educational programs; (5) navigation materiel maintenance.

More specifically, he makes celestial observations at various times of the day and night in order continuously to maintain ship's position; reports ship's position to the Captain at 0800, 1200, and 2000, as well as at other times as required; plots D.R. track and ship's course; keeps himself familiarized with emergency methods of navigation.

In pilot waters, he establishes the position of the ship at frequent intervals by bearings, ranges, and fathometer readings, plotting exact positions on charts to assure safety of the ship's course and position. He also uses the pitometer log, radio-direction finder, magnetic compass, gyrocompass, supersonic devices, special radio devices, and dead reckoning track in advising the O.O.D. or Captain of the safe course to steer. From a thorough knowledge of the principles and the limitations of accuracy of each unit of operation and apparatus, he evaluates data obtained in order to determine which device is to be relied on in advising the Captain of location and course to steer.

He inspects and supervises the maintenance and operation of the steering mechanism, chronometers, sextants, stadimeters, clocks, and other navigational equipment. He maintains constant check on the accuracy of the

gyrocompass and the deviation of the magnetic compass. He calibrates or checks calibration of various navigational instruments.

The Navigation Officer also supervises the preparation and maintenance of the smooth log, compass record book, bearing book, chronometer record book, sight book, and calibration curves for magnetic compass and radio direction finder.

The Assistant Navigator may serve as J.O.O.D., CIC Watch Officer, Coding Board Officer, or as O.O.D. when qualified. The battle station of the Assistant Navigator is usually either bridge or CIC.

COMMUNICATION OFFICER

An officer in this billet serves as the eyes, ears, and voice of his ship. He supervises the functioning of fellow officers and men engaged in a variety of communication duties. He is competent in all phases of general naval communications and is familiar with Fleet Training Publications which control the maneuvers of his ship type and those which operate in conjunction. On destroyers and smaller ships, the Communication Officer acts as Radio Officer, Signal Officer, and Ship's Secretary. On larger ships, the Communication Officer has three assistants to discharge these functions under his supervision. The Communication Officer must discriminate quickly between the urgent and the routine. He must decide speedily the priority and routing of all information (other than routine) which affects his ship.

His responsibilities include: the medium to be employed for communicating with ships

and shore stations, the advice to be given the Commanding Officer concerning tactics dictated by existing conditions, and the drafting of a ship's communication plan and radio frequency plan which harmonize with the general plan of operation established by the Officer in Tactical Command.

The Communication Officer supervises encryption and decryption of dispatch traffic by the Coding Board. He supervises the operation and maintenance of radio, sound, and visual signaling apparatus. He is responsible for the order and cleanliness of all compartments under his jurisdiction. In addition, the procurement, custody, distribution, and correction of classified publications, the preparation of all communication records and reports, and the insuring of reliable, secure, and rapid handling of messages, are his concern.

To do these things effectively requires that he be facile in the use of the maneuvering board, be familiar with codes and ciphers, be conversant with elements of radio engineering, know flag hoists, flashing light, touch typing, radio code, semaphore, recognition doctrine, lookout training, and Mersigs.

Basic requirements include: alert discrimination and rapid decision; even temperament; capacity and patience to exercise detailed supervision; and sound judgment under trying conditions.

COMMUNICATION WATCH OFFICER

The Communication Watch Officer is assigned to larger ships. He performs his duties under the direction of the Communication

Naval Training School (Communications)

The regular course consists of three months of basic training in naval communications. This includes: tactics, mooring and maneuvering board, codes and ciphers, visual communications, radio engineering, flag hoists, flashing light, touch typing, radio code, simulated communications afloat, semaphore, and lookout training.

Certain officers selected by the school are trained for an additional month as signal officers, ship's secretaries, ship communication officers, and aviation communicators. Assignments of officers are made, insofar as possible, in line with the field of their specialization.

Upon completion of the course, officers are given the classification symbol which marks them

as communicators. They are then sent to advanced line officer schools, to operational training centers for certain types of craft, to district communication pools, to certain Naval Air Stations, or direct to ships or advanced bases. Some officers are given special training in Merchant Marine Communications to qualify as Communication Liaison Officers with convoys.

SELECTION REQUIREMENTS

1. Need not be qualified for sea duty.
2. Interest in routine administrative duties requiring exceptional degree of responsibility and accuracy.
3. Good command of English language.
4. Above average personality to deal directly with Commanding Officer.

Officer. He may be required to perform part or all of the duties outlined in the billet description of the Communication Officer.

After accumulating the necessary experience, a Communication Watch Officer may become Assistant Communication Officer of a larger ship or Communication Officer of a smaller combatant or auxiliary vessel. Communication Watch Officers are trained in a three month course at Naval Training School (Communications).

RADIO OFFICER

The Radio Officer directly supervises all personnel engaged in the mechanics of communicating with ships and shore stations beyond visual range. He develops radio communication personnel into a balanced, harmonious team capable of rapid and accurate performance.

Among his responsibilities are the guarding of all required frequencies, the constant adjustment of transmitters and receivers, and the inspection of circuit logs and files. He is required to know radio and sound procedure thoroughly, and to perform functions of a division officer nature in connection with advancement in ratings and the preparation of the Watch, Quarter, and Station Bill for men under his supervision.

The Radio Officer guards the security of his ship by posting enciphered calls and their translations at operating posts which might receive a challenge. He exercises fine discriminations in the choice of frequencies to be employed under various tactical and physical conditions. He is familiar with "Q" signals, naval radio organization-fleet frequency plans, and appropriate training and tactical publications.

In addition to verbal communication responsibilities, the Radio Officer may be required to locate the position of his own or of other ships by taking radio bearings or by the use of supersonic echo-ranging gear.

To succeed in this billet an officer must have a strong interest in radio theory and practice, capacity for detailed supervision, exceptional accuracy and orderliness, and thorough knowl-

edge of radio doctrine in relation to complex strategical and tactical situations.

SHIP'S SECRETARY

This officer is responsible for general supervision over the receipt, routing, filing, accounting, follow-up, review, and dispatch of all ship's correspondence. He is responsible, too, for the custody of secret and confidential matter issued him, and for the care and maintenance of equipment and material used in his department. He serves as the encyclopedia for senior officers on correspondence forms, chains of command, ship reports, and naval style. The Ship's Secretary also maintains the classified and registered mail logs and supervises the activities of Navy mail clerks aboard. The yeoman force assigned to the central communications office is an additional supervisory responsibility.

The ability to explain things clearly is an essential quality in a Ship's Secretary. He must be painstaking and precise and have broad acquaintance with the intricate stream of paper work which enables a ship to live and to fight. Ship's Secretaries are trained in a four month course at the Naval Training School which specializes in Communications. Officers with previous experience as yeomen are particularly well equipped for this specialty.

SIGNAL OFFICER

This officer directly supervises all personnel engaged in the mechanics of communicating with ships and shore stations within visual range. He must develop proficiency, precision, and team work in his signalmen.

Such duty requires ready familiarity with flag hoists, flashing light, semaphore, recognition doctrine, and lookout training. In addition, the Signal Officer should be authoritatively familiar with relevant Fleet Training Publications, with the General Signal Book, the U. S. Navy Visual Call Sign Book, Signal Cipher, Mersigs, and routine visual reports. Commonly, this officer stands deck watches and engages in various collateral duties.

Signal Officers are trained at Naval Training School (Communications).

RADIO SPECIALIST*

(Radar and/or Radio Materiel Officer)

An officer assigned to this duty supervises the maintenance and repair of radar equipment. He must be studious, capable of independent experimentation with electronic equipment, and have a knack for instructing others in the proper use and care of complicated mechanisms. On many ships, the Radio Specialist is called upon to maintain, inspect, and repair, sonar and radio installations. The readiness for service of these vital sources of communication with friendly and enemy units depends upon the painstaking competence with which he performs his duties.

The Radio Specialist instructs enlisted personnel in repair techniques, and examines men for advancement in rating. During general quarters he usually assists in supervising enlisted personnel engaged in the operation of radar and radio equipment. He may stand watches in the CIC, Main Battery Control, Coding Board, and as J.O.O.D.

An officer who chooses this duty should be an exceptional student, particularly adept in mathematics and physics. He should recognize that a long and exacting training period stands between him and active duty. Successful grad-

Naval Training School (Pre-Radar)

Radio Specialists begin their specialized training at a Pre-Radar School. The course is pitched at a high level and is accelerated to an unusual extent. During the first two months of Pre-Radar, for example, student officers cover approximately the same ground in the field of electricity as would be covered in an undergraduate program in electrical engineering.

Officers who qualify after four or five months of pre-radar are sent to an additional four and one-half months of advanced training.

SELECTION REQUIREMENTS

1. Need not be qualified for sea duty.
2. Degree in engineering or physics preferred.
3. Mathematics through calculus and at least 1 year college physics.
4. High scholastic standing.
5. Must meet high qualifying test scores.
6. Must pass special pre-radar tests.

* The billet titles used to distinguish the officer who maintains radar and radio equipment from the officer who interprets the information conveyed by radar and radio have been standardized as follows: the *Radio Specialist (Radar and/or Radio Materiel Officer)* commonly known in the past as the *Technical Radar Officer* is the one who maintains the equipment. The *CIC Watch Officer*, formerly known as the *Tactical Radar Officer*, is the watch officer in the Combat Information Center.

uates of the course are classified as Radio Specialists and are assigned to billets according to the current needs of the service.

CIC WATCH OFFICER

The prime responsibility of an officer engaged in this duty is to serve as interpreter of information coming to the Combat Information Center from radar, under-water sound, visual lookout, aerial scout lookout (via radio), and other ships in company (via radio or other signal). This billet fills the gap between the technical Radio Specialist (who maintains the equipment) and the Captain and other officers aboard ship who must depend upon the information obtained from radar.

The CIC Watch Officer is stationed in the Combat Information Center, the nerve center of the ship. It is his task to supervise the activities of personnel engaged in operating equipment which provides information for navigation, searches for and locates surface and aerial targets, and assists in laying the guns on these targets.

During fair weather, the information furnished the bridge by radar is in the nature of useful supplemental data. At night, in foul weather, in poorly charted waters, or when skirting strange shorelines, the information from the CIC Watch Officer is of paramount importance to ship-handling and fire control.

Naval Training School (Tactical Radar)

This school gives a two month intensive course in CIC organization; specialized problems of shore bombardment, torpedo attack and anti-submarine warfare; fighter direction doctrine; radar theory; inter- and intra-ship communications used in CIC; piloting, summary plot, and DRT plot; gunnery fire control; and tactics.

The course is practical in nature and stresses learning by doing. Emphasis is on the "how" not the "why." Lectures and demonstrations, classroom problem work, actual operation of CIC, radar operation, training films, reading, mock-ups, and quizzes are all employed as training devices.

SELECTION REQUIREMENTS

1. Ability to speak rapidly and fluently.
2. Interest and ability in piloting.
3. Experience helpful which has developed ability to make decisions quickly and accurately.
4. Must pass special tactical radar tests.

To succeed in this billet an officer should be quick mentally and be able to make calm decisions in the midst of swiftly developing events.

FIGHTER DIRECTION OFFICER

This officer serves as the guide for friendly aircraft which are operating in conjunction with his unit, group, or force. On smaller ships, an officer who performs this function is more commonly known as an Interceptor.

It is the task of such officers to coordinate all available information concerning enemy locations and strength and to translate this knowledge into specific tactical directions for air pilots. To do this effectively requires an appreciation of the limitations of both friendly and enemy planes, of the instruments by means of which information is accumulated, and of the offensive and defensive power of surface units involved.

The control of the tactics of fighter planes engaged in the interception of enemy aircraft, and the furnishing of appropriate information to various officers and departments of the ship or task force, is a post of great responsibility. Required are: a clear confident voice, quick mental decision, resourcefulness, imagination, and initiative. Stability under stress is a prime requisite.

Naval Radar Training School

Carefully selected candidates are trained for fourteen weeks at this school. The first month consists of classroom instruction in mastery of relative movement, air-surface warfare, aerial tactics, talker doctrine, etc. The second and third months are occupied mainly with simulated and actual problems of interception and fighter direction.

SELECTION REQUIREMENTS

1. Ability to think quickly and speak clearly.
2. Ability to work harmoniously with other officers and enlisted men in close quarters.
3. Ability to work rapidly under pressure.
4. Must meet high qualifying test scores.

SONAR OFFICER (ASW OFFICER)

At general quarters, the Sonar Officer normally takes his station in the sonar hut. He evaluates all contacts and classifies them as submarine or non-submarine. When the con-

tact is positive, he initiates sound contact procedure and supervises the flow of sonar data to bridge and CIC. Throughout the course of the attack, the Sonar Officer advises the conning officer as to estimated depth, target angle, and speed of the submarine. The Sonar Officer normally stands watches at sea and in port and may be assigned collateral duties. As he advances to positions of greater responsibility aboard ship, his sonar training is invaluable, since all watch officers, including the Executive Officer and Commanding Officer of an anti-submarine vessel must be well qualified to conduct attacks.

Basic requirements for success in this billet are: good sense of relative movement, calm dependability, ability to detect and distinguish between fine variations of pitch and tone, and ability to make quick decisions.

Fleet Sonar School

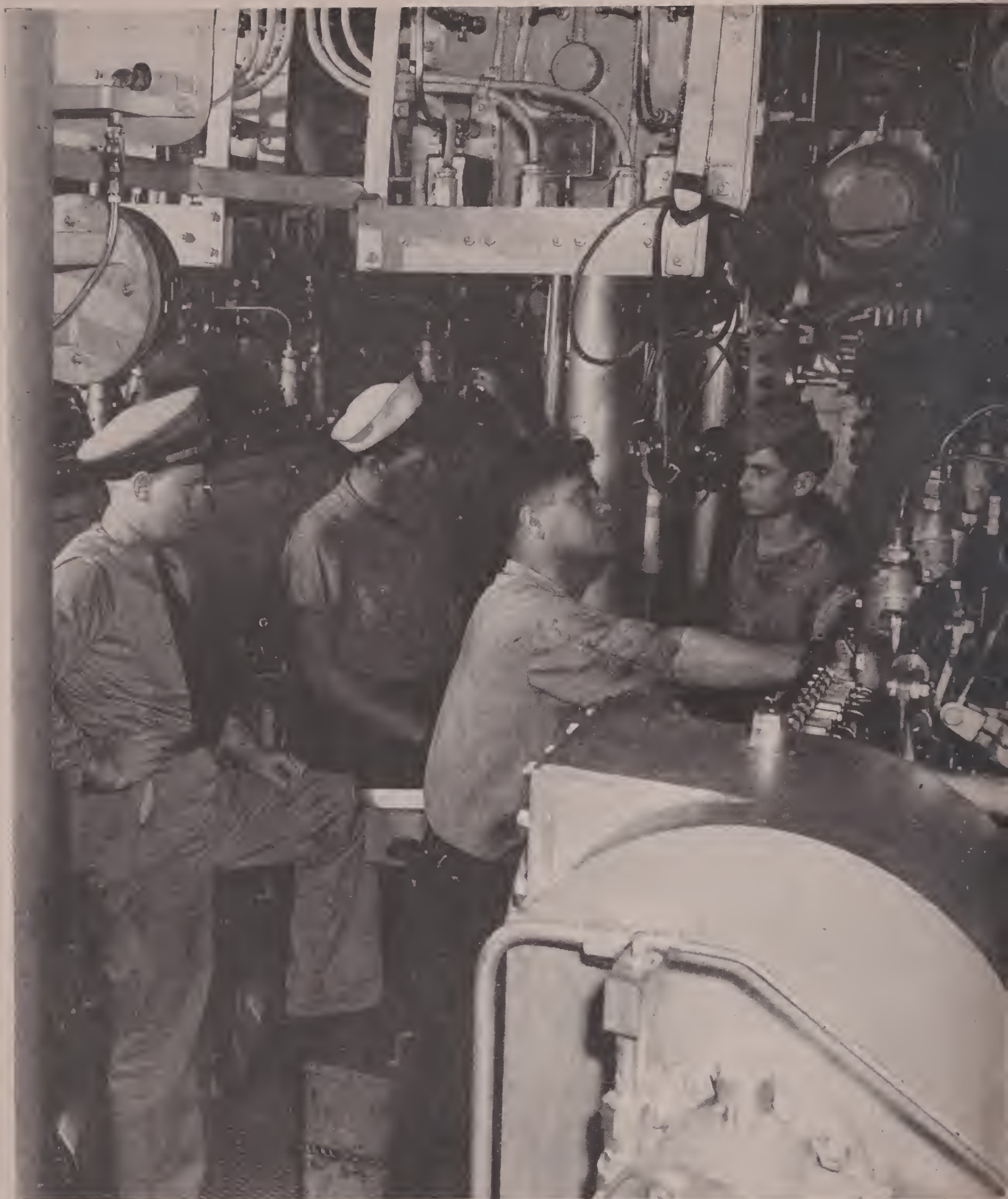
Officers sent to Fleet Sonar School progress through a course of approximately six weeks. The curriculum is organized to include afloat and ashore instruction in the theory and applications of anti-submarine warfare. This includes theory of sound, elements of echo-ranging, sound transmission in sea water, depth charge attack, use of ahead-thrown weapons, duties of each member of an attack team, relation of attack team to watch officer, application and import of Doppler in anti-submarine warfare, interpretation of recorder traces, and geographical plotting.

Instructional devices used include: Primary bearing teachers, instruction on stack, attack teacher, and simulated and actual attack runs.

SELECTION REQUIREMENTS

1. College major in mathematics, physics, or electricity preferred.
2. Must have an "ear for music." Able to distinguish between pitches.
3. Ability to think rapidly and make quick, accurate decisions under stress.
4. Must pass special Sonar tests.





Looking Over the Diesels.—Keeping the engines in repair and preparing his men for advancement are never-ending responsibilities of the engineering officer. Here an officer conducts a training session in the engine room of a patrol craft.

ENGINEERING SPECIALTIES

The safety and fighting ability of a naval ship depend upon the efficient performance of the main propulsion machinery. The health and well being of the men who sail in her depend upon the faithful performance of the auxiliary engines which create and maintain services essential to living comfort.

Prime responsibility for keeping life under the skin of the ship belongs to the Engineering Officer, Assistant Engineering Officer, and Engineering Assistants. The organs and arteries which support the life of the ship are almost as complex as those of a human body. Specialists are required to minister to these mechanisms who are capable of diagnosis, treatment, and, when necessary, surgery.

ENGINEERING OFFICER

On smaller ships and craft of the Navy, one officer carries the total supervisory responsibility in the engineering department. On larger ships, an Assistant Engineering Officer and Engineering Assistants are usually assigned to share the work of the Engineering Officer.

The Engineering Officer serves as a department head and supervises performance of the following duties: care, maintenance, and operation of all machinery and electrical equipment except radio, radar, sound, and visual signaling apparatus; inspection and maintenance of engineering compartments; machine shop operation; stowage and use of engineer stores, supplies, material, and articles of equipment; fuel stowage and use; engineer force watch and duty assignments; preparation of machinery condition and fuel and water consumption reports; enlisted personnel work review, correction, training, and examination for promotion. He may, on some ships, serve as Damage Control Officer. At general quarters he takes station in the main engine room and supervises casualty control.

In addition, the Engineering Officer prepares and preserves a wide variety of prescribed records and reports, conducts routine and special tests, prepares daily engine room orders, and serves as a member of the Hull Board.

Assistant Engineering Officers and Engineer-

ing Assistants perform all or designated portions of the above duties under the direction of the Engineering Officer.

Desirable attributes of an officer in the engineering department include: alertness to details, resourcefulness, ability to train men in the operation and maintenance of equipment and machinery, and strong mechanical interest and ability.

DIESEL ENGINEERING OFFICER

Many of the smaller ships of the Navy—destroyer escorts, amphibious vessels, minesweepers, and most auxiliaries and patrol craft—are equipped with diesel engines for main propulsion and for auxiliary power. Submarines use diesel engines while running surfaced. Most larger ships have emergency diesel engines to provide electric current and for auxiliary purposes.

The Engineering Officer on many small ships, therefore, should be trained in diesel engineering. On the larger ships one or more of the engineering officer assistants should have a knowledge of diesel engines.

The great majority of engineering school graduates are assigned to ships. A few may be assigned to advance bases for repair and maintenance duties.

Naval Training School (Diesel Engineering)

Training in the operation, maintenance, and repair of diesel engines is given at Naval Training Schools (Diesel Engineering).

The training is practical in nature. Subjects included in the course are: Diesel Engines, Ships and Administration, Electrical Engineering, and Engine Room Auxiliaries. Extensive laboratory work is performed in assembling, disassembling, and operating all types of diesel engines and auxiliaries (including refrigeration systems). The course is approximately 19 weeks in duration.

SELECTION REQUIREMENTS

1. Sufficiently rugged to withstand duty on diesel powered craft.
2. Engineering degree; preferably mechanical, desirable.
3. High degree of resourcefulness and mechanical aptitude to supervise repairs.



The "heavies" of a Pacific task group return from a strike against the Japanese.

CONSTRUCTION AND REPAIR SPECIALTIES

Battle damage and marine casualty create problems which challenge the resourcefulness and competence of officers assigned to this department. Mastery of damage control, fire fighting, and ballast trim are essential to the prosecution of naval combat. Tonnage saved is as important as tonnage built.

Officer specialties in this department also in-

sure the seamanlike character of the ship's handling, the smooth functioning of her deck gear, rafts, and boats, and the reliability of her ground tackle, mooring, and towing lines.

Finally, officers in this department supervise the maintenance, inspection, repair, cleanliness, good order, efficiency, and trim appearance of the ship as a whole.

FIRST LIEUTENANT AND DAMAGE CONTROL OFFICER

The First Lieutenant and Damage Control Officer, under general supervision of the Commanding Officer and Executive Officer, is responsible for training and drilling damage control parties in the control of war damage, in fire fighting, and in compensating for, or repairing, other injuries to the ship which affect its safety and fighting capacity.

At general quarters, he supervises the damage control party. He assembles necessary shores, blocks, plugs, braces, velocity power tools, and other material to control flooding, limit damage, and strengthen structural members; cuts away and jettisons equipment to maintain stability and freeboard, and control list and trim; pumps out compartments; operates or supervises operation of fire-fighting equipment, such as carbon dioxide extin-

guishers and foam extinguishers, handy billies, fog nozzles, and sprinkling systems; rigs up emergency replacement parts, such as hull plates or stanchions, and casualty power circuits; and performs other duties of a similar character as conditions require.

He organizes the ship for damage control by establishing: battle and war cruising damage control organizations; departmental and divisional organizations for maintenance of conditions of closure; training programs for all officers and men in damage control duties; and a chain of command for reporting of damage and ordering of corrective measures. During special sea details, he takes station on the fore-castle and is in charge of the forward section during anchoring, mooring, or getting under way. He also supervises towing operations, hoisting and lowering of boats, fueling at sea, and the transfer at sea of personnel and equipment.

As Construction and Hull Officer of the ship, the First Lieutenant has charge of procuring, stowing, and issuing of all deck stores, serves as custodian of the ship's keys, and carries out air tests of compartments. Necessary departmental records are also maintained—equipment history records and logs, and routine and special reports of various kinds pertaining to the hull and fittings (Hull Book).

Officers assigned to this department inspect or direct the inspection of all compartments, bulkheads, doors, valves, pipes, and other parts (except those which are the responsibility of another department). These are inspected for cleanliness, good order, and good working condition. These officers are further responsible for the cleanliness of the casings and bulkheads around machinery outside of engineering spaces, and of all pipes, including uptakes and intakes, hatches, ventilators, and bulkheads, with such exceptions as may be made by the Commanding Officer. Officers in this department also receive reports from crew members as to necessary repairs and schedule the work of repair according to material and man hours required.

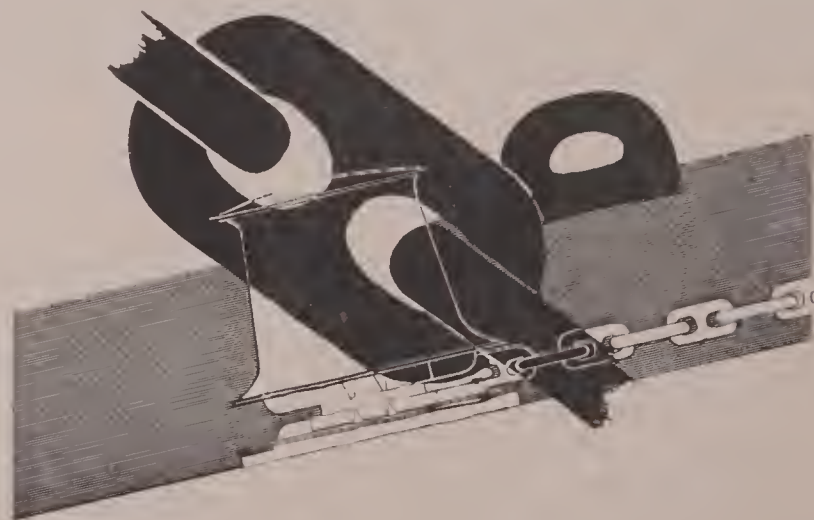
The work supervised by officers in this department includes the training and drilling of damage control parties, repair of damaged equipment, diving operations, maintenance of

damage control equipment and life-saving devices, use and care of ground tackle, maintenance and equipping of life rafts, floater nets, and boats, and chipping and painting.

Personnel training covers such subjects as setting of material conditions of closure; maintenance of watertight integrity; interior battle communications; maintenance and operation of hull and engineering damage control equipment; making of emergency repairs; making way about ship under adverse conditions; use of shores, plugs, and other damage control materiel; locating of damage; fighting fire; fighting effects of chemical agents; and first aid. Both officers and enlisted men are trained in: significance of damage control markings; necessity for thorough application of damage control principles; material conditions; ability of ship to resist damage and remain afloat; damage control methods; and ship structure and equipment location.

On most naval ships, junior officers assigned to this department will be required to perform any or all of these functions. On some of the larger ships, the junior officer may specialize in damage control or chemical warfare defense. On some smaller craft, the Damage Control Officer may be from the engineering department, but this arrangement is not typical of naval ship organization.

Desirable traits for officers in this billet are: skill in handling men of all types, mechanical or civil engineering training and experience, strong command qualities (including a firm strong voice) and ingenuity and determination. Some experience with pumps and pipe systems is valuable for the bulkheads and overheads of a naval ship are strung with conduits.





The final purpose of all officers aboard naval ships is to contribute to bringing a stable gun platform into effective range for handing out punishment to the enemy. Once this is accomplished, the specialists in fire control and gun handling exercise, in a few brief minutes or hours, the accumulated knowledge and skills which months and years of incessant drill have developed.

This trial by fire is the ultimate destiny of every naval ship. It motivates the laying of her keel, exerts the controlling influence on her design, shapes the training pattern of the men who sail in her, and dictates her strategical disposition and tactical use. When the enemy is brought within range, the toll exacted is directly related to the skill of her gunnery and ordnance specialists.

GUNNERY AND ORDNANCE SPECIALTIES

GUNNERY OFFICER (Chief Fire Control Officer)

Small ships of the Navy have a single officer who supervises and administers the work of the Gunnery Department. On larger ships, an Assistant Gunnery Officer and an appropriate number of Gunnery Assistants are assigned duties in the department at the direction of the Gunnery Officer.

The Gunnery Officer is a department head, and, under the supervision of the Commanding Officer and the Executive Officer, carries out broad administrative duties related to material and personnel.

At general quarters he takes station in the main battery control station as chief fire control officer for the ship. He communicates with the Conn, CIC, and all gunnery stations by battle telephones and public address systems. He receives orders from CIC and the bridge relative to gun control and submits information concerning targets, developing dangers, and items of urgent interest to the bridge, CIC, and the plotting room. He uses the directors to determine range, bearing, elevation, and movement of targets. This information is checked against and supplemented by electronic search equipment. He translates information supplied by these sources into an accurate solution of the gunnery problem.

In addition, with permission of the Captain, the Gunnery Officer determines priority of targets for fire, decides which battery should be used for each target, evaluates spots, and prescribes the method of fire control. In the case of air targets, he frequently delegates the decision to open fire to junior officers and petty officers. When damage or casualty impairs the fire control system, he orders standby methods of control calculated to keep the batteries in most effective action.

Officers assigned to the Gunnery Department man key stations; inspect, maintain, repair, adjust, requisition, stow; and keep history, record, and expenditure reports. They under-

take personnel assignment, training, inspection, transfer, discipline, testing, promotion, and morale maintenance.

Officers assigned to the Gunnery Department, in addition to their primary specialties, perform a wide range of collateral duties, including the standing of deck and port watches.

Occasionally, junior officers may be ordered to Fire Control School direct from primary training. More commonly, however, experienced officers from ships' gunnery departments are selected for such training.

A firm clear voice, facility in handling men, quick decision, stability and calmness in the midst of stress and confusion, and stamina are prime qualifications for officers who seek to specialize in this department.

Naval Training School (Fire Control)

Specialist training is given in the science of fire control through a twelve week course.

Emphasis is placed upon the maintenance and operation of guns; solution of gunfire problems through visual, sound, and electronic aids; function and performance of gun crews; and the practical application of fire control in the firing of guns.

Familiarity with loading mechanisms, communication lifts, ballistics, torpedo directors, target identification, power equipment, and directors, is accomplished.

SELECTION REQUIREMENTS

1. Electrical engineering, mathematics, or physics degree preferred.
2. High degree of mechanical aptitude.
3. Experience as machinery inspector or in engineering laboratory helpful.
4. Must meet high qualifying test scores.

RECOGNITION OFFICER

Early in the present war the need became acute for officers and men trained especially in aircraft and surface craft recognition. It is of vital importance that gunner's mates, fire controlmen, lookouts, and officers on the bridge be able to spot planes and ships at extreme ranges as friendly or enemy before opening fire. To

meet this need, a naval training school was established to train qualified officers in the instant recognition of targets and in the technique of instructing other officers and men aboard their ships.

The Recognition Officer, therefore, instructs personnel in the recognition features of ships and aircraft, and assists in the identification of enemy units. By use of film flash projector, movies, models, flash cards, charts, manuals and other training aids, he instructs other officers, lookouts, quartermasters, signalmen, 20mm and 40mm gun crews and other personnel designated by the Commanding Officer in the identification of those planes or ships which may be found in the combat zone. He also trains lookouts in all phases of their duties, such as: estimation of relative bearings, position angles, range, methods of daytime and nighttime scanning, the care and use of binoculars, the standard telephone talking procedure, and methods of making reports.

The Recognition Officer gives individual instruction as necessary; studies action reports from combat zones and so organizes instruction as to emphasize pertinent types of craft in action. He resorts to visual recognition when recognition signals, radio, or alternate systems of identification fail. This officer is likewise responsible for the procurement of dark adaptation goggles and other recognition equipment. Collateral duties characteristic of a junior officer billet in the gunnery department are assigned him.

Naval Training School (Recognition)

The recognition instructors' course requires eight weeks of training.

Emphasis is placed upon the instant recognition of aircraft and surface craft, upon the fundamentals of lookout duty, and upon the devices and techniques of instruction which assist the Recognition Officer to train his shipmates in these fields.

The majority of officers who complete this course go direct to sea as recognition and lookout instructors.

SELECTION REQUIREMENTS

1. Quick eye reaction.
2. Ability to judge distances.
3. Collegiate training helpful in education, psychology, or other fields emphasizing human behavior.
4. Teaching experience desirable.

An officer to succeed in this billet should meet rigid requirements as to vision, be a facile and interesting speaker, know principles of instruction, be ingenious in getting information across, and be a good organizer. Instruction is given to specialists in this field at Naval Training School (Recognition). The course is of two months duration. Some officers are sent to Recognition School for a one month course in lookout recognition before reporting to ships. These officers are not trained as instructors and are not known as Recognition Officers.

TORPEDO OFFICER

At general quarters, this officer stands by at the torpedo director on the navigating bridge as torpedo control officer in a torpedo attack and receives target designations from the Commanding Officer or CIC. He sets up the torpedo problem by giving the director operator necessary inputs such as target course and target angle, target speed, salvo spread and offset, depth setting and torpedo speed. During depth charge attack, the Torpedo Officer may serve as depth charge release operator and work in conjunction with the sonar team.

Under the administrative supervision of the Gunnery Officer, a Torpedo Officer is responsible for the initiation of requisitions for supplies, materials, equipment, repairs, and replacements of ordnance material connected with torpedo and depth charge installations. He inspects equipment, checks quantity, quality, stowage, and conformity with safety regulations. He prepares material reports, trains and drills torpedo and depth charge teams, maintains discipline, supervises the work of crewmen, conducts special study courses, recommends promotion, and keeps personnel records up to date.

Collateral duties of many kinds are assigned such an officer, including the standing of deck and gun watches.

Basic requirements include: sound judgment, calm performance under stress, and the patience and capacity to exercise detailed supervision over the operation of complex mechanisms. Duty assignment is usually to a destroyer, motor torpedo boat, destroyer tender or submarine tender, occasionally to submarines, or to an aircraft carrier for the maintenance of torpedoes used by torpedo bombers.

Officers are trained for this duty at Naval Torpedo Stations. Courses range from 6 to 12 weeks.

Naval Torpedo Station

Intensive courses of training for officers and men are conducted at several torpedo stations. The courses for officers range from six to twelve weeks. Eight weeks is the length of the average course.

The curriculum includes: general torpedo characteristics, disassembly, overhaul and assembly, firing and recovering, operation of the torpedo director and sights, and the strategy and tactics of torpedo warfare. Depth charges are also studied.

SELECTION REQUIREMENTS

1. College training in mathematics, including geometry and trigonometry.
2. High degree of accuracy in estimating target speeds, distances, and angles.
3. Interest and ability in maneuvering board.

OPTICAL OFFICER

A few carefully selected officer candidates are trained in the operation, adjustment, assembly, maintenance, and repair of optical instruments — rangefinders, telescopes, periscopes, navigation instruments, and spotting glasses. Optical officers are usually assigned to large ships with primary duty in the gunnery department where they perform the usual junior officer functions including the standing of deck watches. Collateral duty is principally in connection with the training of personnel in the maintenance, repair, and use of optical instruments.

Naval Training School (Optical-Primary)

Optical Officers are trained at Naval Training School (Optical-Primary) for four weeks. The course includes both classroom and laboratory work.

Training centers around the operation, repair, and maintenance of optical instruments: sextants, chronometers, rangefinders, etc.

SELECTION REQUIREMENTS

1. College training in physics, optometry, or optics preferred.
2. Proficiency and interest in mathematics.
3. Must be methodical, exacting, and interested in detail work.
4. Must meet high qualifying test scores.

The standards of selection for such an officer are high. A degree in physics, optometry, or optics is preferred. Proficiency in mathematics is a requisite.

Personal qualities required are methodical exactness, manual dexterity, patience, and strong interest in the mechanics of optical instruments.

MINE ASSEMBLY OFFICER

The German innovation of the aircraft-laid influence mine proved one of the most effective "secret weapons" of the present war. This development taxed the ingenuity of the United Nations both defensively and offensively. Today, we have out-stripped the enemy in types and effectiveness of mines.

After initial training a Mine Assembly Officer's usual assignment is to a mining team in some advanced area where his job is not only to see that the mines are in working order, but where he must also be the mining "brains" of that theater. He picks the target, he determines the type and number of mines that would be most effective against that target, he briefs the air crews on the mines they are to carry and where they should be laid, and he interviews them upon their return as to the exact spot in which the mines fell.

Some Mine Assembly Officers are also assigned to duty as Mining Officers on destroyer-minelayers, and aircraft carriers.

The officer desired as a Mine Assembly Officer must not only develop into a technician, but also must have a mature outlook and be able to plan and execute large scale operations.

Naval Mine Warfare School

Mine Assembly Officers are trained for eleven weeks at this school. Additional training is then given in the repair and maintenance of mine mechanisms at the Naval Ordnance Laboratory.

Course content centers around the assembly, adjustment, and maintenance of all types of mines.

SELECTION REQUIREMENTS

1. College training and/or experience in electrical engineering, physics, or electronics.
2. Must be a precise, accurate worker with interest in mine assembly problems involving analytical thinking.
3. Good mechanical aptitude.
4. Must meet qualifying test scores.



Pacific Armada.—Sleek and hard-hitting ships of a naval task force steam out of a Pacific harbor en route to a battle mission. Another Jap island fort is due for a blasting.

DUTY ABOARD NAVAL SHIPS

Regardless of an officer's specialty, he usually finds himself engaged in a great many collateral tasks and in qualifying as Officer of the Deck. An appreciation of the duties of various ships and craft is a useful background for the billet interview.

Naval ships have widely different functions. These functions dictate, to large extent, the nature of the ship's construction, power plant, and armament. To a lesser extent, these differences determine the type of officer assigned to the vessel. The ship tends to shape the shipmate.

The purpose of this section of the booklet is to sketch the functions of naval craft and ships to which junior officers without sea experience are most commonly assigned. Match your own characteristics against the qualifications required by the missions which the various naval ships perform.



AIRCRAFT CARRIERS

The use of aircraft has made it possible for fleets to fight each other while hundreds of miles apart. The carriers are mobile bases for planes, capable of moving aircraft into striking distance of vast areas formerly inaccessible.

The aircraft on carriers or carrier escorts have four main functions. (1) They are used as scouts to locate and observe enemy forces or watch for hostile aircraft. (2) They launch initial long-range attacks against enemy forces. (3) Carrier planes provide our own ships with air protection against enemy aircraft. (4) Planes may be used on antisubmarine patrols to spot submarines from the air.

The chief function of the carrier itself is to carry, launch, and handle aircraft quickly and effectively. The carrier must approach the enemy unseen at high speed, launch its planes for the attack, recover them, and get away. The

carrier uses its fighters and anti-aircraft guns as an aid in protecting itself from enemy air attack. The aircraft carrier is the center of a modern naval air-strike unit, because of its long-range offensive power and its limited defensive ability. It is a powerful offensive weapon, but it cannot protect itself adequately alone. Carrier escorts, many of them converted merchant ships, sometimes form task force units and often accompany convoys.

Carriers vary in size from the small 500' carrier escorts (CVE's) to 888' carriers (CV's), the largest vessels used by the Navy. Carrier escorts displace from 7,000 to 13,000 tons, large carriers from 25,000 to 45,000 tons. They may carry eighty or more planes—fighters, scouts, bombers, and torpedo planes.

Duty aboard an aircraft carrier or escort is similar to that aboard any other large ship. Officers stand gunnery, deck, communication or engineering watches and many are Junior Division Officers. They work under well-trained officers in supervising groups of men, either below deck in engineering or above deck in gunnery or with control groups. Naval deck or engineering officers aboard carriers have little to do with the operation or handling of aircraft, although planes do add interest and often excitement to the daily routine. Deck officers interested in aviation often find this duty unusually interesting and instructive. It is an excellent opportunity to gain sea experience under supervision.

The number of officers aboard a carrier varies from thirty on a CVE to as many as 110 on a large CV. The average CVE has 800 men aboard, the CV 3,000. The officers aboard a carrier or carrier escort are: the Commanding Officer, Executive Officer, the heads of the departments (Gunnery, Navigation, Engineering, Construction, Medical, Supply, and Air), a Communication Officer, division officers and assistants, and any other special officers deemed necessary for the operation of the carrier, such

as CIC watch officers, Bomb Disposal Officers, and Fighter Direction Officers. The Air Department is responsible for the administration and control of all aviation activities such as control of aircraft, overhaul and repair, intelligence, servicing, and aircraft gunnery. Air Department officers are detailed by the Bureau of Aeronautics. On carriers the Commanding Officer, Executive Officer, and Navigator all are naval aviators. Gunnery Officers aboard carriers deal only with anti-aircraft guns. There is no main battery.

Training for officers on aircraft carriers and carrier escorts is given directly aboard ship. New officers gain knowledge by working under experienced men and by observation of the work of others. Training is given by division officers to whom new officers are responsible. They are given instruction in the operation of equipment, instruments, and machinery aboard the carrier and are taught to supervise the work of men under them. They are instructed in the duties of watch officers and the use of all instruments used during watch. Officers who are interested in immediate duty in combat areas can find it on carriers or carrier escorts.



BATTLESHIPS

The largest, most powerful, and most heavily armed combatant ship in the Navy, the battleship, receives many new naval officers for training aboard ship. Its primary function is to aid in the complete maintenance of sea power: attacking enemy vessels, protecting troop convoys, covering landing operations, and shelling enemy land bases from many miles off shore. Officers reporting usually work under division officers to whom they are responsible and are placed in charge of the supervision and discipline of personnel performing specific duties. They are required to stand watches as Junior Officer of the Deck, gunnery watches, or engineering watches.

Practical experience is supplemented by required reading, tests, and instructional material. Because of complex machinery and equipment, one will find life more involved than aboard a small ship, his responsibilities confined to a smaller sphere of activity, yet his

duties just as vital and varied. There is excellent opportunity for training in military command and for advancement to division officer for one who has enthusiasm for navy customs and traditions and who can accept responsibility. The successful battleship officer is one who can learn from observation and "doing", who takes pride in his personal appearance, can fit into a prescribed organizational pattern, and has the ability to transmit orders in concise language with a commanding voice.

Life aboard any large ship is more involved than that aboard a smaller vessel. The machinery is larger and more complex. There are many more men, making necessary an intricate ship organization and firmer discipline. A naval officer on a battleship or a cruiser may find his responsibilities confined to a smaller sphere of activity than he would on a ship where he was in sole charge. He must learn to assume responsibility with a minimum of training. Duty aboard a large ship gives a new officer an excellent opportunity to gain seamanship experience under supervision.

The chief officers on a battleship and cruiser are the Commanding and Executive Officers and the department heads—Navigation, Gunnery, Engineering, Construction, Communication, Medical, and Supply. Each of the department heads is assisted by division officers, usually lieutenants, in charge of specific groups of officers and men.



CRUISERS

The cruiser, second largest combatant ship in the Navy, is one of our most valuable and versatile ships. It sacrifices the armament and tonnage of the battleship for the sake of speed and maneuverability, yet still retains sufficient armor and guns to attack any vessel afloat.

The cruiser may be used in a great many different ways. It carries seaplanes to aid in patrolling and scouting. It is an important part of a carrier strike unit. It supports destroyer attacks and screens capital ships in fleet operations. It may be used in convoys to give armored protection to merchant ships. It engages in shore bombardment. To carry out this variety of tasks, the cruiser must possess size, speed, maneuverability, armament,



Amphibious Shock Troops.—Canon-firing alligators plow toward shore. Rocket-firing LCI's smother Jap beach defenses with explosives.

planes, and a large cruising radius. The United States has three types of cruisers: CB (large cruiser), CA (heavy cruiser), and CL (light cruiser).

The most modern heavy cruisers average close to 800 feet in length, displace approximately 17,000 tons, have a rated speed of 32 knots, carry nine 8" guns, a number of 5" anti-aircraft guns, four or five seaplanes (a few carry as many as eight), and have a cruising range of 14,000 miles at low speed.

Light cruisers sacrifice size of armament for more guns of smaller calibre capable of a much higher rate and volume of fire. This makes the CL a particularly deadly close range ship and a highly effective night fighter. Most light cruisers carry two or four seaplanes. The new 6,000 ton light cruisers carry torpedoes and extra small guns.

Large cruisers (CB) are new to the Navy. They are practically battleships in tonnage and armament, displacing approximately 23,000 tons and are equipped with 12" guns.

AMPHIBIOUS CRAFT

Amphibious craft and amphibious warfare are as revolutionary and important additions to naval science as were gunpowder, the rifled

cannon, steam, steel ships, the torpedo, the airplane, and aircraft carriers.

In present day warfare the advance of armies, assault of land objectives, the establishing of beachheads, and the progressive carrying of war to the home land of the enemy are impossible without a strong amphibious force. Without exception, the speed of an advance can be traced directly to the amphibious craft which make such advance possible. In conjunction with other combatant forces the amphibious craft round out the Navy's attack upon the fourth dimension—the land. The rate of expansion and the nature of the duty makes this part of the naval service a field which is adapted to, and which requires, young energetic officers. Young officers in the Amphibious Forces are given broad opportunity to exercise resourcefulness and to demonstrate ability in a field which is new to the Navy, yet which has earned full recognition in terms of both strategic and tactical importance.

Until the last enemy-held shore is reduced and the last American has landed in combat it will be the amphibious force which will do the job of delivering the right men to the right place at the right time.



LANDING SHIP TANK

The LST is one of the newer types of ship grouped under the term "amphibious". The ship is manned by seven to nine officers and one hundred six enlisted men. The ship is over three hundred feet in length, and is ocean-going. Construction is on the order of a tanker. Small underwater compartmentation makes the ship extremely difficult to sink. Accommodations are roomy. When unloaded, the crew can play basketball in the hold and have plenty of room to spare. Armament is for brisk defensive action.

The primary function of the ship is to transport tanks and vehicles and to land them on a beachhead. In practice, however, any and all types of cargo are transported by LST's (including service as troopships). The LST, in addition, transports a variety of smaller landing craft to points within striking distance of an objective. One of these craft, the LCT, is large enough to carry several medium tanks under its own power. The LCT is launched from the deck posts of an LST by flooding the compartments of the larger ship to produce a list sufficient to slide the LCT beam on into the sea. Normally, the LST does not approach hostile beaches with the initial assault waves. More commonly it carries ashore heavy armored support and miscellaneous material needed to supply and reinforce the initial landing parties after the beachhead is relatively secure.

Once landings are accomplished the LST is frequently employed as a supply ship. It may return many times to the same beach loaded with supplies and equipment to aid combat forces ashore. Another function to which the LST has proved well adapted is the removal of wounded and prisoners of war to ports of embarkation.

When engaged in landing operations, LST's maneuver in conjunction with a variety of combat ships, auxiliary vessels, and a host of sister landing craft. The operational demands upon officers and crew require the exercise of ingenuity, a basic understanding of tactical maneuvers, and competent ship and cargo handling.



LANDING SHIP MEDIUM

The LSM was conceived and constructed as the result of operational experience gained with other types of landing craft. Consequently, it is not strange that it should embody characteristics of several. Actually, the LSM is a composite of the LST, LCI, LCT. The ship has a complement of four officers and forty eight men. Over-all length is about 200 feet and beam 34 feet.

The primary function of the ship is closely allied to that of the LST; to transport tanks and to land them directly on a beach. As is true of the LST, many other assignments come its way, including transporting of troops and serving as lighters for heavier cargo vessels. The LSM has proved a valuable addition to the amphibious family because of its maneuverability, shallow draft, and its ability to discharge its load and to retract from the beach more rapidly than larger landing ships.

In operations, the LSM acts in conjunction with fleet combatant ships, auxiliaries, other landing craft, and is involved closely in army liaison. Since all duties fall upon the shoulders of four officers, versatility, ingenuity, and resourcefulness are required.



LANDING CRAFT INFANTRY (LARGE)

The Landing Craft Infantry, Large LCI(L) is 157 feet long, has a maximum speed of 16 knots, and a complement of 3 officers and 25 men. One junior officer additional is commonly assigned to each ship.

The primary function of this type is to serve as a troop carrier for ferrying troops over distances which can be covered in relatively short periods. Although the LCI is the smallest ocean crossing craft of the amphibious family, it is designed to carry more than 200 soldiers in addition to her own complement. Earlier models discharged shore combat units by means of side ramps which were lowered as soon as the craft hit the beach. Later models have abandoned the side ramps and now discharge troops through bow doors which open like those of an LST. Additional redesign features

include a rounded pilot house (in place of square blockhouse type) and a redistribution of armament and alteration of ship interior.

Following initial landings for the purpose of carrying reinforcements to beachheads (supplies as well as personnel), secondary uses made of the LCI are to evacuate troops from forward areas and to act as salvage craft.

Duty on an LCI requires good basic seamanship qualities, knowledge of tactical maneuvers, and liaison work with shore combat units. Smart aggressive teamwork accomplishes the objective of hitting the beach at the right time, discharging combat troops rapidly, and retracting handily to make way for successive assault waves.

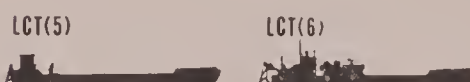
The Commanding Officer has collateral duty as Navigator and Communication Officer, the Executive Officer is in charge of Gunnery, Supply, and the Construction and Repair Department, the Engineering Officer handles engineering and commissary responsibilities.

LANDING CRAFT SUPPORT (LARGE)

The Landing Craft Support, Large, Mark 3, LCS (L-3), is a modified LCI (L). A large number of these have been constructed for use as close fire support gunboats. They are variously armed to produce the desired volume and type of fire. These craft are miniature battleships—their armament in relation to tonnage is great. The LCS serves a dual purpose: (1) to support beach landings by standing close in to hostile shores and bringing arma-

ment to bear upon opposition strongpoints, and (2) to engage in barge and small craft hunting operations.

Collateral duties performed by the Landing Craft Support include: traffic control, anti-aircraft support, and salvage work. A limited number of officers are chosen from among those with LCI experience. The duty requires longer training and more technical competence than is demanded in related amphibious craft. The officer complement is five in number and includes a specialist in gunnery and a specialist in communications.



LANDING CRAFT TANK

The Landing Craft Tank (LCT Mark 5 and Mark 6) is a 105 foot tank lighter. It is designed to load five or six medium tanks. The crew is composed of one officer and 12 enlisted men. It was an LCT which earned the honor of being the first American landing craft to shoot down an enemy plane.

Normally, LCT's travel in concert shepherded by protected fleet units. They are designed for relatively short distance transport, yet scores of them made the trip from North Africa to Sicily through heavy sea and hit the beach on time.

When not engaged in tank transport, the LCT serves as a capable workhorse. It is well adapted to use as a lighter.



Objective: Red Beach

ATTACK BOATS

The coordination of the movements of scores of small craft operating at high speed under combat conditions is one of the operational problems peculiar to the amphibious forces. There are associated problems of organization too, which revolve around the loading and unloading of troops and equipment in ship to shore operations.

To meet this problem, the amphibious forces have developed a flotilla organization which trains as a team in all phases of amphibious duty. Once trained, such flotilla organizations are capable of embarking, together with their craft, aboard a convoy of troop transports, and accomplishing an entire amphibious landing operation for the thousands of troops involved. Such a flotilla organization is similarly available to be sent as a pool to operational areas where it may perform local assignments as a group or be drawn upon as a replacement pool for other flotilla organizations.

The Flotilla Commander is usually a Lieutenant Commander. He heads a flotilla subdivided under him into three boat groups, each headed by a Lieutenant. Each Boat Group Commander subdivides the attack boats under his command into three assistant boat group commands, each headed by a Lieutenant (jg). Each Assistant Boat Group Commander subdivides responsibility among four division officers. Each Division Officer has three crews of four men each under his immediate command.

Such duty is obviously active in character, and guarantees close contact with the enemy.

AUXILIARIES

A Navy to win battles must have more than warships. No ship, however powerful, can remain in battle without fuel, ammunition, supplies, and repair. No battle in distant countries can be fought unless troops are carried overseas. Standing by the combatant ships ready to furnish them at all times with men and materials they need, are the innumerable and varied auxiliaries—cargo ships, transports, repair ships, ammunition ships, hospital ships, tankers, store ships, tenders, salvage ships, tugs, rescue ships, and many others. Auxiliary ships have practically no idle moments. Whatever the state of the war, during major engagements or during lulls in action, auxiliary

ships continue to deliver men and supplies to bases and combat areas. In addition to serving as the work horses of the fleet, auxiliary vessels may see an uncommon amount of action. At the present time, for example, one APA has already engaged in 17 combat actions during the two and one half years which have elapsed since its launching.

Auxiliary vessels are attached to Base Forces to provide mobility for equipment, supplies, and trained personnel. From Base Forces, auxiliaries may be sent to battle as part of Battle or Scouting Forces. They are ready to swing into action with any part of the fleet.

Auxiliary duty is not glamorous. It is hard grueling work, often packed with excitement under attack. In the performance of their missions, men on auxiliary ships almost invariably see action in combat zones. They travel over wide areas and spend much time at sea. Auxiliary ships seldom receive publicity or glory, but because of their jobs, many battles are won. They carry armament to protect themselves and can inflict heavy damage on the enemy.

AKA—The combat-loaded cargo ship is the most important of the cargo class. It is well-armed and well-manned. It carries landing and amphibious equipment and the necessary items incident to large scale operations. These ships are generally attached to amphibious forces and operate in combat zones. Highly-trained young men are required due to the nerve-racking strain of long hours under continuous attack.

AKS—The cargo storeship carries general stores, is lightly-armed, and spends much time at sea but not usually near combat zones.

AKN—The net transport, a lightly-armed ship, carries anti-torpedo and submarine nets and personnel with net training to set up net protection where needed. This is heavy work, requiring physically strong officers used to handling men engaged in manual labor.

AKV—The AKV is a lightly-armed cargo vessel which carries airplanes.





Combat-Loaded Transport

AF—The storeship carries mainly refrigerated supplies, meats and food. It is lightly-armed, and its chief function is to keep ships and stations supplied. It spends much time at sea but not usually near combat areas.

AE—Ammunition ships carry ammunition and supplies where needed. They are usually conveniently near the fleets in battle areas. This is hazardous duty. Ships are well-armed.

AP—Well-armed transports vary in size from very small 2,000 ton ships to 40,000 tonners. Their primary duty is the transporting of troops to distribution centers. Men on transports probably see more of the ocean than crews on any other type of vessel. They do not usually operate in combat zones, but are sought by submarines and long range aircraft and must be well-armed for protection.

APA—Combat-loaded transports are the most vital of the transport class. They are well armed. They often operate with the AKA's (combat-loaded cargo ships). These ships obtain troops from various centers, carry them to the scene of operations, and land complete combat units. Men on these ships spend much time at sea and see plenty of action. This is duty which requires young officers with enough nerve and stamina to stand the heavy strain of long hours of work coupled with continuous attack.

APH—The hospital transport acts with the AP and APA in carrying troops to combat areas and landing them, but is equipped as a hospital ship and becomes such immediately upon completion of landing operations. It is a lightly-armed, rather small ship, which gets into many strange places.

AH—The hospital ship is fully equipped and staffed as a floating hospital. It has no armament, is painted white, and operates at night with identification lights. This is a vitally necessary type of ship, the importance of which is recognized and respected.

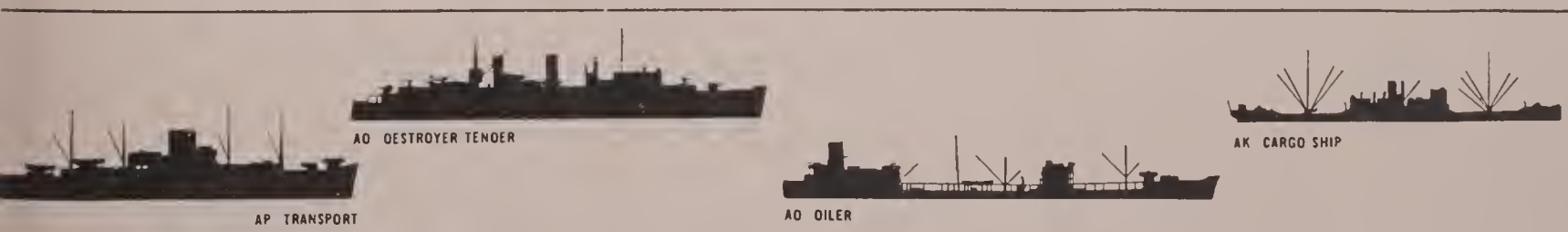
AO—Large oil tankers are among the most important auxiliaries. Their duty is to carry fuel oil to the ships of the fleet, and to transport such fuel at sea or in port, and at any time of day or night. They are well-armed, hard-working ships which spend much time at sea. They are targets for submarines and aircraft but travel well escorted. A good example of the miracles expected of the ships of supply is afforded by the experience of one tanker. A violent typhoon which persisted for many hours resulted in the sinking of several destroyers and other ships. During the height of the typhoon an oil tanker successfully managed the refueling of combatant ships, and overcame by expert seamanship and ingenuity the problems incident to snapping hose lines and the battering of side plates.

AOG—Gasoline tankers vary in size from small craft to moderately-sized tankers. Their function is similar to that of oilers. This is dangerous duty requiring men who can maneuver with precision.

AD—Moderately-armed destroyer tenders operate with destroyer divisions to repair, supply, and sometimes fuel destroyers. Men on these ships spend little time at sea but the duty is interesting.

AS—The submarine tender performs similar duties for the submarine. Personnel acquainted with submarines are required.

AV—The seaplane tenders act as mobile bases for patrol seaplanes and aviation activi-



ties. They often perform emergency repair for planes. These well-armed ships are usually among the first ships in a new area and are an object of enemy attack if they can be reached.

AVP—Small seaplane tenders operate far out in front of all other units, usually working from an AV. They have destroyer hulls, a good speed, and are heavily armed for their size. When not tending planes they perform duties as escorts and patrol craft. They often operate from little-known islands.

AR—Repair ships are lightly-armed ships manned with highly specialized personnel. They operate behind the lines to furnish repairs and emergency upkeep for all types of ships. They do not spend much time at sea. This is excellent training, particularly for engineers.

AGC—Communication Headquarters Ships contain a mass of communications equipment with large accommodations for a headquarters unit. They are lightly-armed and serve as centers of operations.

AGS—Hydrographic survey ships see more of the remote corners of the world than any other type. Intelligent officers with background of hydrographic work are required. An amusing but characteristic illustration of this type of service is told of one hydrographic survey ship which was engaged in checking the accuracy of charts covering relatively remote sea areas. The ship approached a pinnacle reef which was charted as fifteen feet below the surface. The lead line revealed the true depth at 10 feet. The commanding officer of the ship solved the discrepancy by blowing 5 feet off the pinnacle rock with a depth charge.

LSD—The Landing Ship Dock is a large auxiliary designed to assist directly in prosecuting amphibious assaults. This 13,000 ton ship is 460 feet in length with a beam of 72 feet and a rated speed of 17 knots. Its physical appearance is unique—the LSD has a stack on each side, a cut-away whaler stern with ramp, and high freeboard in the forward midship section. The ship is semi-submersible. It releases combat-loaded landing craft by submerging a deck and floating out its load of craft from a stern ramp. Its anti-aircraft armament of 40mm and 20mm guns is liberal—in addition, a 5" 38 calibre gun serves as a dual-purpose piece.

The officer complement includes 14 line officers in addition to a variable number of boat

officers and cargo officers. The usual department heads are assisted by Watch Officers—junior officers assigned as assistants to department heads or as boat officers. One of the engineering department officers is a specialist in charge of submerging operations. The officer complement is composed largely of experienced officers drawn from amphibious ships. The LSD does not serve as a repair ship, does not perform lighterage functions, and does not serve as a pier or dock for other ships or craft.

LSV—This 10,000 ton ship is a conversion from a cruiser hull. It is heavily armed with 5" 38 calibre guns (centered) and plenty of anti-aircraft guns. This ship is equipped with a stern ramp but is not submersible. Its function is to transport armed vehicles to invasion beaches. The vehicles are combat loaded, and the drivers and mechanics travel aboard and roll the alligators, ducks, etc., out the stern once the objective is reached. The crew and officer complement compares closely with that of an LSD.



DESTROYERS

The destroyer is one of our hardest, most versatile, and fastest fighting ships. The destroyer is a mandatory component of all task forces. Its torpedo attack enables it to spearhead offensive engagements as well as to disorganize the attacks of enemy forces. The use of this deadly weapon makes it a powerful threat to larger vessels, including battleships and carriers. The effective surface and anti-aircraft armament of the destroyer enables the ship to participate in combat as a fleet unit capable of decisive firepower. Its maneuverability, shallow draft, and speed are excellently adapted to shore bombardment missions. As an anti-submarine vessel (for both attack and screening purposes) the destroyer excels. In addition, this versatile vessel performs a host of utility duties, including rescue of downed aviators, picking up of survivors, and the transport of troops.

Modern destroyers vary considerably in size and armament. The newer classes are 2250 tons or better, are about 350 feet in length



Pacific Destroyer.—Fighter and escort

and have a rated speed of 35 knots or better. The ship is equipped with 5" main batteries, many 40mm and 20mm mounts for anti-aircraft protection, depth charge and other ASW weapons, and torpedo tubes (5 to 12). Armament may vary widely from ship to ship. Many of the older classes of destroyers have been rearmed completely.

The destroyer has no armor for protection against gunfire and torpedoes. It relies upon its speed, maneuverability, and shallow draft. Once hit, it may be damaged fatally.

In general, life aboard a destroyer is rugged, particularly in rough weather. Living conditions are crowded and duty exacting. Great responsibility is thrust upon the junior officer and his days are busy and trying. However, officers assigned to destroyer duty have an almost certain opportunity of facing action in combat zones and capable junior officers may become heads of departments within one year of reporting aboard.

The usual destroyer complement is from twelve to twenty-four officers and over three hundred men. Billets aboard the ship are usually the Commanding Officer (Commander or Lieutenant Commander with destroyer experience), Executive Officer (Lieutenant Commander or Lieutenant). Gunnery Officer, Engineering Officer, First Lieutenant, Sound Officer, Communication Officer, Torpedo Officer,

and junior officers. Junior officers act as assistants to the more senior officers, stand junior officer of the deck watches; gun control, CIC, and coding watches; man key battle stations in their departments; and assist in personnel administration, maintenance and upkeep duties, and training of the complement.

The nature of the duty requires officers who have the ability to react quickly and efficiently in emergencies, who can endure physical strain with minimum rest, and who have the capacity to absorb much technical information informally and quickly. Some junior officers are sent direct as fleet replacements to older type destroyers—others are given more extensive preparational training and are assigned to new construction. The latter are selected from officers in training on the basis of aptitude, interest, and performance while under instruction.



DESTROYER ESCORTS

The destroyer escort, one of the newer ships in the Navy, has made a name for itself. Early in the present war, the need was acute for an anti-submarine vessel which could win the battle against the U-boats in the Atlantic.

The existing anti-submarine craft were not suited to extended operations at sea and destroyers were needed desperately for fleet operations. The answer to this need was the destroyer escort, a type that could be built quickly in large numbers, yet fulfill all the requirements for escort of convoy, patrol, and hunter-killer operations.

The contribution of this ship to the winning of the Battle of the Atlantic is now history. It proved itself an ideal anti-submarine warfare ship. Its sound and electronic search apparatus, its use of traditional and ahead-thrown underwater weapons, its potent anti-aircraft armament, and its sea keeping ability combined to defeat convoy raiders from under-sea and overhead. In the Pacific, the destroyer escort earned new laurels in fleet operations. Surface guns and torpedo tubes made it a ship to be respected by enemy surface craft. The use of the destroyer escort as a screening ship for amphibious task forces and for carrier escorts further evidenced its versatility.

The average destroyer escort is about 300 feet long and displaces from 1300 to 1700 tons. There are twelve officers aboard: (1) Commanding Officer, (2) Executive Officer and Navigator, (3) First Lieutenant and Damage Control Officer, (4) Gunnery Officer, (5) Engineering Officer, (6) Communication Officer, (7) Radar and CIC Officer, (8) Sonar Officer, (9) Assistant Gunnery Officer (Torpedo Officer), (10) Assistant Engineering Officer, (11) Assistant First Lieutenant, and, (12) Supply Officer.

One of the most important posts aboard a destroyer escort is that of Anti-Submarine Warfare Officer. He directs and trains soundmen, the attack team, and supervises the care of ASW equipment. His knowledge of sonar equipment, weapons, and methods of attack must be well rounded.

DISTRICT CRAFT AND SMALL AUXILIARIES

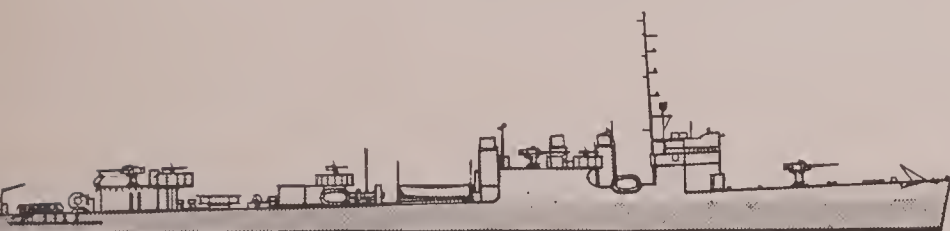
Among the hardest working ships in the Navy are the small auxiliaries and the district harbor craft. Since they are not primarily fighting ships, they are, for the most part, unarmed. Despite their small dimensions, however, the numerous tasks which they perform in continental and overseas harbors, sea frontiers, convoys, amphibious forces, and task forces, make them invaluable.

Vessels of the Navy may be either in commission or in service. Commissioned ships are usually assigned to fleet commands. In-service vessels are normally assigned to a shore-based activity under the control of the Commandant, who designates the officers-in-charge and exercises many of the powers usually vested in the Commanding Officer of a commissioned vessel. Many of the small auxiliaries are in commission—others are in-service. District craft whose designations usually begin with the letter "Y", are generally in-service vessels, although some of the large "Y" craft have been placed in commission.

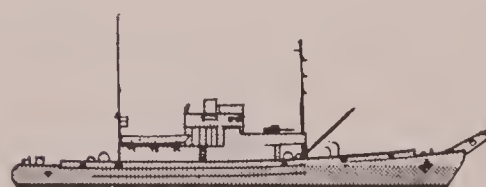
Officers assigned to duty aboard commissioned vessels are sent to specific ships or to fleet commands for further assignment. Those sent to in-service craft are usually under the authority of the Commandants of Naval Districts, who take charge of their assignment and training. Duty on small commissioned auxiliaries gives new officers excellent opportunities for training in seamanship under supervision. Capable officers can rise quickly to positions of responsibility and command on these smaller ships.

Among the important small auxiliaries in commission to which new officers may be assigned are the following:

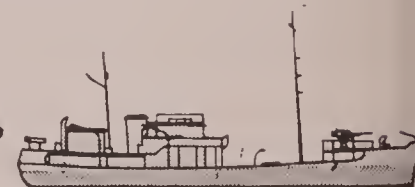
APc—103 ft. coastal transports. These ships are designed for transport work close to shore, and many have been assigned to flotillas operat-



DM-DMS—DESTROYER MINELAYER/SWEEPER



YN—NET TENDER



YP(AM)—DISTRICT PATROL VESSEL

ing with amphibious forces. They have an official complement of three officers.

ARS—183 ft. and 200 ft. salvage ships. A comparatively new class of ship, the ARS is a specialist vessel. In addition to its regular complement (which includes three commissioned and two warrant officers) it has a crew of salvage experts, headed by two trained salvage officers. Its regular crew must be competent seamen, trained in towing and fire-fighting work.

ATF—Ocean-going fleet tugs. Over 200 feet in length and 1,000 tons displacement, they can engage in towing duties on the high seas and accompany convoys and task forces of the fleet. They are prepared for fire-fighting, salvage, or any other rescue operations required. Although lightly armed, they may see plenty of action. Rugged and competent seamen are required for this duty.

ATA & ATR—143 ft. and 165 ft. rescue tugs. These are designed to relieve the ocean-going tugs of duties close to shore. Two commissioned and two warrant officers complete the complement in addition to the Commanding Officer.

YDG's—Degaussing ships. Because their duties are special, they carry degaussing specialists, with one or more deck officers who are responsible for the actual operation of the ship.

AN—151 ft. and 165 ft. net tenders. Lightly armed and manned by specially trained personnel, these ships are used to lay and tend anti-submarine nets protecting harbor entrances and fleet anchorages at home and overseas.

YO—Fuel oil barges. Although the majority of this class and all the new YO's are in-service vessels with a Boatswain as officer-in-charge, there are about twelve YO's in commission captained by commissioned officers.

PY's—(large converted yachts) and **PYc's** (coastal yachts) are now used largely for spe-

cial duties as school ships or experimental ships. Some are still used for patrol, weather, and guard duties. **PE's** (World War I Eagle Boats) are used as school ships or for towing targets.

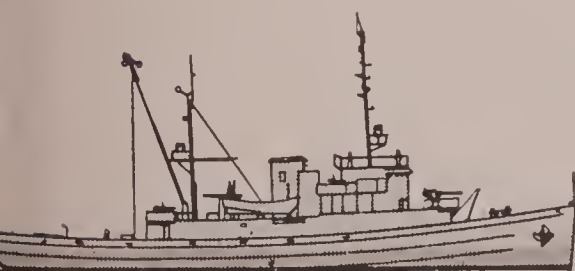
IX—The IX classification stands for miscellaneous, unclassified ships. An IX may be from 100 to 400 feet in length, it may be in commission or in service, and it may be anything from a ferry-boat to a mobile storage ship. Whatever its size or its function, an IX performs valuable service, and its officers are given opportunities for advancement to positions of responsibility.

DISTRICT AUXILIARY AND LOCAL DEFENSE CRAFT

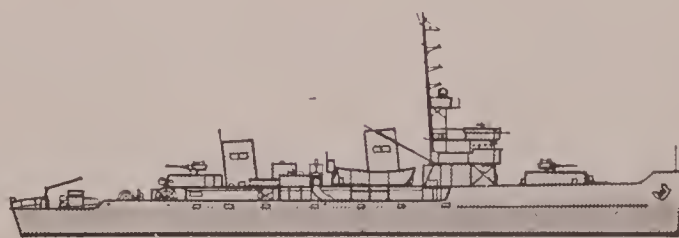
There are about forty types of ships bearing a "Y" designation. Most officers on these ships are assigned to the shore activity to which the ships are attached. Duty aboard these ships gives excellent training for new officers without sea experience. Some well-qualified officers from the Districts may be assigned, after a period of practical experience, to the smaller ships of the fleet—small auxiliaries, patrol and escort vessels, and amphibious craft.

The principal type of district craft on which new officers serve is the **YP**, district patrol vessel. Although some **YP's**, chiefly in the Pacific, are in commission, the great majority are in service, attached to Naval Districts. For the most part, they are armed craft under 120 feet in length and were taken over early in the war for use as patrol craft. Some officers aboard these ships may be assigned later to patrol and escort vessels of the fleet.

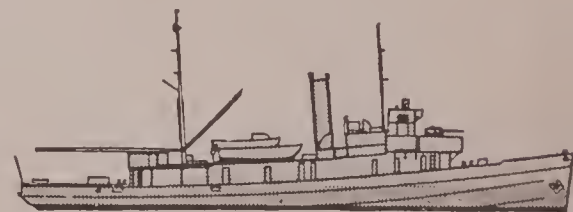
Officers may also be assigned by District Commandants to **YNg's** (gate vessels), from which they may be assigned to net tenders, or to **YT's** (harbor tugs) where they can



OCEANGOING TUG -- ASR SIMILAR



AM—MINE SWEEPER



AM- AT- ASR- ARS- AVP

qualify for duty aboard fleet tugs, or to the in-service YO's, YF's (covered lighters), and YAG's (unclassified yard craft).

MINECRAFT

Numerous minecraft are required to protect our own ports, coastal waters, and sea lanes through minesweeping operations as well as to harass the enemy by minelaying operations. The minecraft is a combatant ship, hence it is found in battle fleets. Many minecraft specialize either as a sweeper or a layer. Others are dual purpose—designed for offensive as well as defensive mine warfare. Certain minecraft are so versatile that mine warfare activity may become collateral rather than prime duty. The AM type, for example, is excellently equipped for anti-submarine warfare and is frequently used for convoy escort. Similarly, the DMS and DM classes of sweepers and layers perform general destroyer duties when not engaged in mine warfare missions.

The most numerous minesweepers are the YMS type (136' wooden-hulled motor minesweepers), the steel hulled AM type (special fleet type sweepers 180' and 220'), and the DMS type (converted destroyers). Practically all of these types are in service outside the continental limits of the country.

The latest DMS is a conversion of the 1630 ton class destroyer. It is used primarily in conjunction with the fleet to perform high speed sweeping operations preliminary to invasions or to clear areas through which invasion forces must pass en route to the objective. The latest DM type is a conversion of the 2200 ton destroyer class. As a minelayer, this ship slips into enemy controlled waters during periods of low visibility, sows mine fields at strategic points across enemy shipping lanes, and withdraws silently. The success of such an operation is dependent upon escaping enemy detection. Careful planning and expert seamanship are required to perform such missions under cover and to effect a withdrawal without falling victim to the mines sowed by companion ships. Both the DMS and DM are equivalent to DD's in armament. In addition to the usual destroyer officer complement, these types carry a Mining Officer. Officers and men are given special training in the loading and laying of mines.

The AMc type (small wooden-hulled coastal sweeps) and converted trawlers are assigned to Naval Districts and serve as patrol boats and minesweepers in district waters. The typical AMc has three officers: Commanding Officer, Executive Officer, and Engineering Officer. The YMS has a fourth junior officer. The larger AM has nine officers: Commanding Officer, Executive Officer, First Lieutenant, Engineering Officer, Gunnery Officer, Communication Officer, Sound Officer, Commissary and Supply Officer, and one Warrant Boatswain.

All of these officers perform general duties and stand deck watches in addition to administering their departments. They assist in minesweeping operations, supervise the maintenance and operation of technical gear, and assist in the processing of communications. Successful performance of minesweeping and minelaying operations requires high standards of seamanship. Mechanical and electrical backgrounds in the way of training or experience are helpful.

PATROL VESSELS

The submarine continuously threatens United States shipping in our far-flung convoy lanes as well as in the waters of the western hemisphere. The task of patrolling is the job of our small patrol ships and submarine chasers in all the active theatres of the war. In addition, the patrol vessels are used in all amphibious operations, both as control vessels and for screening operations. The patrol craft (PC's) and motor gunboats (PGM's) are used in some theatres for maintaining a blockade.

The chief patrol ships used by the Navy are steelhulled PG's (Corvette), PCE's PCE(R)'s, and PC's; woodenhulled PCS's and SC's; and PGM's—steelhulled 173' class and woodenhulled 110' class, as motor gunboats for blockades and anti-barge patrol. The PCE(R)'s, in addition to escort assignment, are used to pick up survivors from sunken ships and to evacuate wounded personnel from beachheads. The ship's complement provides for a doctor and sufficient number of pharmacist mates so as to give the necessary medical care and treatment before the wounded are transferred to a base hospital. The PG's (Corvette) and PCE's are used for escort duties. The PCE's are further used as control vessels, and some

are specially equipped to perform additional operating assignments as weather ships.

Patrol craft are ideal sub chasers because of their great maneuverability. Small and manageable, they can swing themselves into position to drop depth charges and to fire anti-aircraft guns effectively, meanwhile making themselves exceedingly poor targets for hostile submarines and planes.

One PC has furnished an example of the maneuverability and effectiveness of these ships. This small patrol chaser, engaged in escort duty somewhere in the North Pacific, sighted a Japanese submarine a short distance ahead. The PC, firing with its small calibre anti-aircraft guns, prevented the Japanese from using their deck guns. After dropping depth charges in a shallow pattern, she turned straight into the submarine. She rammed the enemy sub once, then swung at full speed and rammed it again, meanwhile blasting with her forward gun. The enemy submarine was split open, tried to surface, and was sunk. This feat was possible only because of the great maneuverability of the PC plus the courage and skill of her crew.

The PG, PCE and PCE(R) have an official officer complement of six officers but usually carry nine aboard. In general, the duties and qualifications of these officers are the same as those aboard DE's. These may vary as needs vary.

The officers aboard may be: (1) and (2) Commanding and Executive Officers (taken from duty afloat—usually Lieutenants), (3)

First Lieutenant, (4) Gunnery Officer, (5) Communication Officer, (6) Anti-Submarine Warfare Officer, (7) Engineering Officer, (8) and (9) two Junior Officers. Officers without prior sea duty may be assigned as any officer but the Commanding Officer, Executive Officer and First Lieutenant. The Engineering Officer should have completed Diesel Engineering School.

The PC and PGM—173' class have official complement of five officers. They are: (1) and (2) Commanding and Executive Officers (from duty afloat—usually Lieutenants or Lieutenants (jg)), (3) one Junior Officer with specialized engineering training, (4) and (5) two other Junior Officers.

The PCS carries four officers: (1) and (2) Commanding and Executive Officers (from duty afloat—Lieutenants or Lieutenants, junior grade), (3) and (4) two Junior Officers, one usually with specialized engineering training.

The SC and PCM—110' Class have three officers, the Commanding and Executive Officers, and a Junior Officer. Any one of the three may act as engineer.

Officers assigned to duty in the foregoing type vessels have to administer one or more departments, and periodically their assignments are rotated so that upon completing a normal tour of duty in this class of vessel, the officer is well-founded and trained in the administration of all departments of a commissioned vessel. Further, he has qualified to stand an independent deck watch in port and under way in these vessels.



Ships of war, ships of burden, and ships of mercy gather against the foe.

VOLUNTEER DUTIES

Volunteer duties are of three types: extra-hazardous, hazardous, and special. Extra-hazardous duties are so classified because they are dangerous, require individual initiative to high degree, and demand unquestioning courage. As compensating factors, these duties usually allow extra pay and other awards.

Hazardous duties are less dangerous. Although the situations which develop in the line of duty are potentially hazardous, disaster is more frequently due to a slip or miscalculation than to enemy action.

Special programs include duties which are classified as volunteer primarily for reasons other than danger. Special volunteer duties frequently require officers with highly specialized backgrounds, demand that interest and enthusiasm be maintained at high level, and require constant application during arduous training programs.

Each candidate for volunteer duty must sign a statement that he understands the nature of the duty and desires to volunteer. This signed statement is attached to, and forwarded with, the Duty Recommendation Form, NavPers 2100 at the regular time for submitting these forms to the Bureau of Naval Personnel. This statement is then filed by the Bureau in the officer's permanent record jacket.

SPECIAL AMPHIBIOUS PROGRAMS

The period immediately prior to, and immediately following an invasion of an enemy held coast creates special problems which must be handled by teams of officers and men who have been trained for the accomplishment of specific missions. An officer who requests such duty is assigned to the command of a unit which carries out important reconnaissance missions for information regarding the disposition, size, and mobility of enemy concentrations. Such units may be called upon to go ashore independently in enemy-held territory. The nature of such missions is invariably secret.

An intensive training program of about three months usually precedes assignment to the duty. Concentrated and practical instruction is given in small boat operations, seamanship, piloting, engineering, signaling, radio, scouting, and commando tactics. Great emphasis is placed upon physical conditioning and swimming.

In the selection of officers for this duty, physical and psychological fitness are stressed—academic competence is secondary. Officers are needed who are alert, have good command qualities of voice and action, are self-reliant, ingenious, and responsible. A good sense of balance and direction, familiarity with water and darkness, physical prowess and stamina, and a desire to meet the enemy at close quarters, are important qualifications. Occupational experience as a forester, structural or highway engineer, surveyor, cartographer, life guard, coach, or athlete will prove helpful.

Above all, officers who request this duty should be courageous, seek adventure, and be willing to accept severe physical hardship. Recognition and awards await those who have what this hazardous duty takes.

BOMB DISPOSAL OFFICER

When a bomb hits a target it may explode instantly, explode after a short delay, explode at a predetermined number of hours after impact, or remain unexploded but constitute a serious ever-present hazard until rendered safe. In all cases but the first, the situation is one for the Bomb Disposal Officer to handle.

Some bombs are mechanical failures because of a flaw in the complex bomb fusing system. They are, nevertheless, in a highly sensitive condition. The UXB (unexploded bomb) is a hazard and must be made harmless at once. All bombs which fail to explode upon impact are assumed to be time bombs until proved otherwise.

To combat this menace, Bomb Disposal Officers are assigned to operational posts in com-

bat areas, to all combatant ships of cruiser tonnage and above, fleet units, special intelligence posts, and in allied ordnance capacities within and without the continental limits.

To dispose of unexploded ordnance in a correct and safe manner requires that the Bomb Disposal Officer understand the construction of the bombs and fuses of all countries. He must know the general nature and extent of damage caused by various types of high explosive bombs, their sensitivity, and power. He must be skilled in the use of special tools for disposing of all types of ordnance. He must have expert knowledge of booby traps and anti-personnel devices.

Such a task as that of the Bomb Disposal Officer requires skill, judgment, intelligence, and patience. The skill of officers who combine caution and courage in the right proportions saves thousands of lives and millions of dollars worth of property.

The duty is a volunteer duty because of the hazard which is always present in handling

unexploded ordnance. Yet the pride of the specialists in this branch of naval service is that very infrequently is the life of a Bomb Disposal Officer lost.

Bomb Disposal School

Training for carefully selected volunteer officers is given at Bomb Disposal School. The course is 13 to 14 weeks in duration. It includes some night lectures, demonstrations, and laboratory classes. About 25 per cent of the course is devoted to practical field work.

The course of study includes the mastery of the bombs and fuses of all countries, and the methods for rendering safe all types of unexploded ordnance.

SELECTION REQUIREMENTS

1. Exceptionally high scholastic average.
2. Knowledge of physics and ordnance helpful.
3. Must be accurate worker with ability to pay attention to details.
4. Must not be reckless, dare-devil type.
5. Volunteers only.



Removing a 1000-Pound UXB.

CHEMICAL WARFARE OFFICER

Officers who volunteer for this billet are assigned to instructional work at shore stations and on large ships. It is important that they respect but not fear chemicals, and that their interest in chemical warfare be genuine.

Chemical engineering subjects or a college major in chemistry are preferred but not absolutely essential if the candidate demonstrates interest and ability or has a hobby in the chemical field. Previous industrial experience in the manufacture or laboratory study of chemicals is desirable.

An officer is trained for this billet in a short four week course. Training is primarily centered upon defensive aspects of chemical warfare and secondarily upon offensive applications. Instruction includes: properties of agents, lung irritants, gas identification, chemical weapons and munitions, and protection of civilians, supplies, and ships. An additional two weeks of training is devoted to the handling and storage of toxic gas.

The Chemical Warfare Officer must be quick thinking and articulate during emergencies. He must interest and motivate others to practice protection.

Aboard ship, the Chemical Warfare Officer is usually found in the Construction and Repair Department. Commonly, the First Lieutenant acts in this capacity.

Naval Training School (Chemical Warfare)

Chemical Warfare Officers are trained during a six-week course. Four weeks are devoted to regular chemical warfare, and an additional two weeks to a study of toxic gases.

Emphasis is placed upon the defensive aspects of chemical warfare; properties of agents, lung irritants, gas identification, chemical weapons, protective measures, and storage.

SELECTION REQUIREMENTS

1. Good sense of smell since gases are associated with their characteristic odors.
2. Chemical engineering background helpful.
3. No fear of chemical warfare.
4. Ability to remain calm under pressure and give orders accurately and rapidly.
5. Teaching experience helpful.

MARINE CORPS OFFICER

From time to time, the Marine Corps extends the opportunity to naval officers in training to volunteer for commissioning in the U. S.

Marine Corps. Successful candidates are commissioned as Second Lieutenants and are assigned to combat duty in charge of a platoon of enlisted Marines. The preparation for this type of duty, is a four month training course, followed by immediate assignment to the combat area. Marine Officers may be given an opportunity to specialize at specialist schools in artillery, ordnance, or communications.

Candidates with exceptional leadership ability are sought—particularly those who are “jacks of all trades.” Ingenuity and resourcefulness, qualities which make for a good mixer, and the wish to close with the enemy, are all desirable personal traits.

MINE DISPOSAL OFFICER

New types of mines have appeared in this war as rapidly and as regularly as types of aircraft. It is imperative that knowledge of what makes a new mine “tick” be gained immediately, for without such knowledge defensive sweeping is impossible. Hitler’s vaunted secret weapon in 1939 was the magnetic mine and his boast that with it he would bring Britain to her knees would possibly have come true but for the courageous work of British mine disposal personnel.

The U. S. Mine Disposal Service has been operating in every theater of the war since 1941, coping with mines in myriad circumstances—taking them apart, blowing them up, working on them under water and on land, and acquiring samples from captured mine dumps. Almost invariably when a new field of enemy mines is discovered, disposal personnel are called in to recover and dismantle at least one mine and to supply technical intelligence to the Sweeping Forces.

Training for such work includes several months’ background at the Mine Warfare School, then advanced training at a Navy Yard (which includes a course in deep sea diving). Almost all Mine Disposal Officers and men hold the rate of Diver, 2/c.

Successful completion of this training requires good physical condition, some mechanical aptitude, and a large amount of common sense. Furthermore, Mine Disposal Officers are often privileged to have great independence of operation and must be able to assume the accompanying responsibilities.

Mine disposal is considered voluntary duty

only because of the routine hazards involved in handling explosives and not because of any inherent risk in the work itself. The officers are so well trained that to date there have been very few fatalities.

Naval Mine Warfare School

Mine Disposal Officers spend eleven weeks in underwater ordnance training, followed by eleven additional weeks at Mine Disposal School.

The first period is devoted to the characteristics of mines, depth charges, torpedoes, etc., their tactical use, and effective counter measures. The second period includes a detailed study of Allied and enemy underwater ordnance, training in diving, and the use of deep sea and shallow water gear.

SELECTION REQUIREMENTS

1. Good scholastic average.
2. Mechanical aptitude.
- 3.. Training in physics, mathematics, or electricity preferred.
4. Volunteers only.



MOTOR TORPEDO BOAT OFFICER

No naval craft has captured the imagination of the American public more than the PT boat. One of the fastest craft in the Navy, it can outmaneuver and outrun all types of enemy vessels when the conditions are favorable. Earlier, its chief function was to carry out sneak attacks on enemy ships, to fire a series of torpedoes at deadly short range, then beat a hasty zigzag retreat from the danger area. More recently, the tactical use of the motor torpedo boat has broadened in many ways. Principal current use is for scouting, damaging shore installations, and intercepting small transports and troop barges. Its effectiveness as a small gunboat has been amply demonstrated within recent months.

The PT boat varies from 70 to 80 feet in length, and is driven by three Packard engines, each of 1350 horsepower or more. In addition to being equipped with four torpedoes, it is armed with anti-aircraft guns, and anti-personnel weapons.

Because of the nature of the boat and its missions, the life of a PT Boat Officer is often arduous. Living conditions aboard are apt to be crowded and poor. Men may spend grueling hours at sea in a boat too small to give warmth

or comfort. Advanced base provisions are often inadequate. Men must get along with each other in crowded conditions for days at a time.

PT boats operate in squadrons from advanced bases, where they return for fuel, repair, and ammunition. Engineers and ordnance officers are stationed at bases to service, maintain, and supply the boats. There are usually twelve boats in each squadron, but this number may vary.

The PT boat has a complement of two officers, (1) Commanding Officer, and (2) Executive Officer. Both officers must have a complete working knowledge of all operations aboard, of navigation, gunnery, torpedoes, communications, engineering, and general seamanship. They must mold their crew of seven or eight men into a quick-thinking, quick-acting unit, with a high morale and a spirit of obedience.

Each squadron has a Commanding Officer and Executive Officer. Capable officers from PT boats may become squadron Executive or Commanding Officers after a period of successful operational experience.

An advanced base unit generally has three officers, though this may be expanded to include ten or twelve. The essential officers are one engineering officer, an ordnance officer, and a radio and radar materiel officer. These officers engage in servicing and supplying the boats. They overhaul and repair engines, torpedoes, equipment, and guns, and restock the boat with torpedoes and ammunition.

SELECTION REQUIREMENTS

1. Must pass special BuMed physical examination.
2. Small boat experience very desirable.
3. Athletic background helpful.
4. Volunteers only.

NAVAL GUNFIRE LIAISON OFFICER

This is a billet which requires outstanding judgment and high personal qualities. The decisions reached and the directions transmitted by the Naval Gunfire Liaison Officer determine the effectiveness of naval support to land operations. The duty has many aspects: one of the most common assignments is to conceal one's fire control party and equipment ashore during naval assault on enemy held territory and to direct the fire of ships engaged in shore bombardment of enemy installations and troop dispositions.

Training is accomplished through assignment to duty aboard a combatant ship in the gunnery department. This assignment is usually to a destroyer, cruiser or battleship participating in shore bombardments. Following this experience, several months of additional training are given ashore in the principles of gunfire liaison. Such a course also emphasizes map reading, air photo interpretation, communications, and combat conditioning.

Officers who volunteer for this duty must be courageous, be self-confident, be given to making quick decisions, and be adapted to "fox hole" life. Aggressive and independent action must be taken on numerous occasions. Officers who have high academic ability combined with experience in forestry, game hunting, and camping in rough country are the type who prove most adapted to this duty.

ORIENTAL LANGUAGE OFFICER

Officers who volunteer for this duty are assigned eventually to front line duty interpreting, interviewing prisoners, and translating leaflets, letters, and documents. Before qualifying for such an assignment, however, an officer must survive a rigorous academic training program for a period of six to eighteen months.

Oriental Language Officers specialize in a single language—Russian, Chinese, Japanese or Malayan, at the School of Oriental Languages. From the start of the course, all intercourse is carried on in the language of one's specialty. This regimen applies not only to the hours of academic instruction, but also to the conduct of normal day-to-day routines as well as to social and recreational periods: sports, plays, songs, and wardroom conversations.

Navy School of Oriental Languages

The length of the training program varies with the language studied. Japanese is fourteen months, Chinese eighteen months, Russian six months, and Malayan three months.

The program is entirely devoted to language mastery with the exception of one hour per day of physical exercise.

SELECTION REQUIREMENTS

1. Exceptionally high scholastic standards.
2. Excellent memorization ability.
3. Willingness to undergo exceptionally intense and rigorous training.
4. Volunteers only.

Obviously, an officer who volunteers for such a billet must have high capacity for learning. Memorization ability and stamina to stand up under intensive study are essential. In addition, the personal qualities of the officer should be suited to the exercise of tact and diplomacy, good interrogation, and the assumption of individual responsibility.



SUBMARINE OFFICER

The submarine is one of the most highly mechanized craft afloat. The compact interior contains a vast amount of machinery. Because of the complex mechanization of the submarine, every officer aboard must be a technician. Every valve, lever, switch and instrument aboard is of vital importance. Failure to understand and appreciate their importance is to court disaster. Duty aboard a submarine is often not glamorous and may be most monotonous during long periods of routine waiting. Days of submerged operations and nights of watchful waiting in an assigned area can hardly be called exciting. Moments of action are certain to occur, and when they do, they are breath-taking in their excitement. Every man has his chance to engage in action against the enemy and to see the results of his long hours of waiting.

The chief function of the submarine on war patrol is the destroying of enemy men-of-war and merchant shipping. Because of its ability to submerge, it has been a most powerful weapon against shipping, often operating within range of shore guns. The submarine has been used, too, on secret missions where surface vessels could not be employed.

Officers are assigned aboard submarines under instruction as Assistant to the Engineer and Electrical Officer, First Lieutenant, Gunnery and Torpedo Officer, Communication Officer, or as Radar and Radio Materiel Officer with collateral duties. They stand OOD watches and diving watches at sea, and OOD watches in port—in addition, supervise personnel and the maintenance, operation, and repair of equipment.

Applications for submarine training are especially desired from officers with seagoing experience, particularly those who are experi-

enced in ship handling. Consequently, careful selection based on the quality of an officer's fitness report records, is used to determine those best fitted to the current needs of the submarine service.

SELECTION REQUIREMENTS

1. Must pass special BuMed physical examination.
2. College training in engineering (particularly electrical) desired.
3. One year sea experience preferably aboard destroyer.
4. Outstanding personality and ability to adjust to life in crowded quarters.
5. Favorable attitude of family toward officer's serving on submarines.
6. Intense desire to see action.
7. Volunteers only.

UNDERWATER DEMOLITION TEAM OFFICER

An officer who volunteers for this billet may serve as Mine Disposal Officer, Boat Officer, Communication Officer, Platoon Leader, or Assistant Platoon Leader on the headquarters staff of an underwater demolition team.

Such a team carries out hydrographic reconnaissance up to the high water mark and compiles and interprets results; marks obstacles and channels; destroys or removes man-made or natural landing party obstacles by means of explosives before, during, and after assault; and cooperates effectively with all other activities operating in the area (especially with pre-assault intelligence). These operations are carried on prior to the launching of amphibious assaults. The duty is of central importance.

Training is rigorous. It concentrates upon a practical knowledge of the use of explosives. Other important fields of learning are: handling of explosives, removal of obstacles, detection of mines and booby traps, minesweeping in shallow water, piloting, seamanship, interpretation of coastal silhouettes, use of landing craft and rubber boats, physical conditioning, long distance surf swimming with equipment, stealth and concealment, shallow water diving,

military discipline, and hydrographic reconnaissance.

An officer to succeed in this billet need not possess unusually high academic proficiency, but should have outstanding qualifications in the way of practical intelligence and personal qualities which inspire confidence. Mature judgment, the making of quick, intelligent decisions, courage, self-reliance, good military bearing, and interest in demolition work are of central importance.



"Stand By!"

MISCELLANEOUS AND SPECIAL BILLETS

Junior line officers are procured primarily for filling the Navy's needs at sea aboard combatant and supporting ships of the fleet. Occasionally, special needs arise which are so urgent as to require channeling officers trained for deck and engineering duties into special programs. Normally, the staffing of special programs (particularly those which are shore based) is accomplished by using more experienced officers: reserve officers brought into service from civilian employment, and officers rotated from ship to shore.

Although the likelihood of assignment to special and miscellaneous billets such as those listed in this section of the booklet is confined to officers above the rank of Ensign, and although many of the programs have no open quotas, an occasional new officer may be assigned to them if his experience is exceptional, or if some physical impairment is suffered during training or after commissioning which causes him to fail to meet active sea duty standards.

As a look ahead to future duty possibilities, this section will prove of assistance to the young officer who may become eligible for reassignment after serving an initial tour of duty. It may also serve as a useful reference for any officer who is made available or who may be authorized to request a change of duty.

ARMED GUARD OFFICER

Protection of merchant shipping has been one of the major problems of this war. To lessen the menace of enemy submarines, surface vessels, and planes which prey upon merchant ships, the Navy provides our supply vessels with armed escort ships, and, in addition, places trained gun crews aboard Merchantmen (the Armed Guard). The officer and gun crews on each merchant ship man all sizes and types of guns up to five inch. In enemy infested waters, Navy Armed Guard crews may see plenty of action.

Generally, younger officers of the Navy are not assigned to this duty. From time to time, however, the urgency of this program has required the detailing of many officers of all ages and abilities to meet the need.

Armed Guard Officers are the representatives of the Navy in the merchant fleet. They are expected to perform their duties in the best traditions of the service. The need for motivating crews to keep constant vigil and to improve through steady drill taxes ingenuity and command qualities. To maintain high morale within the Armed Guard crew, to preserve good relations between the navy crew and the merchant crew and to represent the Navy well in the eyes of Merchant Marine Officers are responsibilities which challenge. Officers with teaching, coaching, and industrial relations backgrounds, are usually well suited to the billet.

BEACH BATTALION OFFICER

Officers detailed to Beach Battalion duty select suitable landing points, mark navigational hazards, and direct traffic along the beachhead during landing operations. They effect emergency repairs to boats and keep beaches clear of obstacles which impede the efficiency of landing operations. Beach Battalion Officers also maintain communication with naval task groups and with vessels operating in concert. They care, too, for beach casualties and evacuate the wounded to ships.

Officers with organizational and administrative experience are preferred — particularly those who have handled gangs of laborers engaged in outdoor work.

HARBOR ENTRANCE CONTROL POST OFFICER

To keep check on all vessels entering and leaving harbors and to control traffic in crowded areas, the Navy maintains Harbor Entrance Control Posts at the entrances to most harbors in the continental United States and at advanced bases. Watch officers stationed at these posts supervise the regulation of traffic and act as liaison between Army shore-based defenses and local patrol craft in the event of enemy attack. When the presence of enemy surface or underwater craft is discovered by underwater detection stations, this information is relayed to the Harbor Entrance Control Post.

It is the duty of the Watch Officer to direct patrol vessels and aircraft in their search for the marauder.

MILITARY GOVERNMENT OFFICER

Officers detailed to this program assist in setting up and administering military government in occupied areas in the Far East.

Broad and progressive work experience in city management, public administration, police training, labor, transportation, shipping, agriculture, mining, fisheries, public accounting, finance, utilities, public health, commodity control, prices and rationing, or manufacture and trade is required of candidates.

Speaking knowledge of an Oriental language is highly desirable, but not imperative.

As billet openings occur in this program it is planned to give all qualified naval officers an opportunity to submit applications by way of an AlNav. The lower age limit will be set at 30 years and applications received will be reviewed and acted upon by a Selection Board.

NET DEFENSE OFFICER

One important method of protecting harbor entrances and fleet anchorages from enemy submarines, torpedoes, and small craft is to use submarine nets and torpedo nets. These heavy steel nets, suspended from buoys, are laid vertically across the entrances of both continental and advanced base harbors and are anchored to the ocean floor. Within continental limits, nets are assembled, laid, and repaired from Net Depots near the harbor. At advanced bases, nets brought in on net cargo vessels (AKN) are assembled and launched from them and laid by net layers (AN). The net layers also tend and maintain these nets. Both types of ship may be found in the most advanced areas, and occasionally must work and fight at the same time, for nets are now laid in early stages of assault operations. Pontoon net-tending barges, pontoon gate vessels to operate net gates, and pontoon tugs round out this fleet.

Trained personnel are required to perform necessary functions. Officers at Net Depots supervise manufacture, repair, and loading of net and boom defenses. Officers aboard net vessels perform duties as general deck officers as well as supervise the laying, tending, and repair of net equipment. This duty is rugged and

involves heavy equipment and hard work; however there is much good experience in seamanship, and the use of interesting machinery. For security reasons the net and boom service performs with little fanfare.

PORT DIRECTOR OFFICER

Officers detailed to this billet are assigned duty in connection with planning and coordinating the movement of ships and cargo; arranging for berthing, fueling, and provisioning of ships; supervision of cargo handling; passing on maintenance and repair of ships; and handling of personnel. Assignment is to Port Director offices in and out of the continental limits.

Extensive experience is required as marine superintendent, port terminal superintendent, pier superintendent, stevedore superintendent, stevedore, port captain, export manager, marine engineer (maintenance), traffic manager, or shipping agent.

UNDERWATER (HARBOR) DETECTION OFFICER

Continental and advanced base harbors must be protected vigilantly in order to safeguard their immense importance to the successful prosecution of the war. Special precautions must be taken against submarines, hostile minelayers, and small offensive craft like E boats and motor torpedo boats.

The most frequent harbor protection devices are magnetic loops, harbor echo-ranging and listening devices, heralds, sono-radio buoys, and cable-connected hydrophones—all of which aid in detection and location of all underwater and surface craft.

Two principal types of officers serve in harbor defense: technical and non-technical watch officers. Technical watch officers are responsible for the installation and maintenance of underwater detection devices. Non-technical watch officers supervise enlisted operators on rotating watches, interpret information received by equipment, and make reports to higher authorities at Harbor Entrance Control Posts or at tactical operations centers.

Harbor defense duty is well suited to officers who are interested in technical equipment. Officers not qualified for sea duty may be considered for this billet.

EDUCATIONAL AND OCCUPATIONAL INDEX TO NAVAL OFFICER BILLETS

The following list of ship and shore billets to which junior officers may be assigned is grouped by educational—occupational headings for convenient reference.

All of the duties which appear in this list are described as to qualifications and training in the *Billet Selection Requirements Manual: Types of Naval Officer Duty*, NavPers 16407. The Personnel Officer of your station, the Classification and Selection Officer of your training base or the Interviewing Officer of your school has one of these manuals.

ACCOUNTING

- Accounting Officer
- Contract Termination Officer
- Cost Inspection Officer
- Insurance Division Officer
- Price Adjustment Board
- Ship's Service Officer
- Supply Corps

ATHLETIC, COACHING, ETC.

- Amphibious
- Amphibious Assignments to Area Commanders
- Beachmaster
- Company Officer
- Demolition Unit
- Mine Disposal
- Motor Torpedo Boats
- Naval Gunfire Liaison Officer
- Physical Training Officer (Aviation)
- Recreation and Welfare Officer
- Scouts and Raiders

ADMINISTRATIVE—GENERAL

- Civil Affairs
- Control Materials Plan Officer
- Harbor Entrance Control Post

BUSINESS ADMINISTRATION

- Advanced Base
- Bachelor Officers Quarters Officer
- Billet Analysis Officer
- Commercial Banking Officer
- Communications
- District Civilian Personnel Officer
- Forms Control Officer
- Hotel Manager
- IBM Officer
- Insurance Division Officer
- Job Analysis and Evaluation Officer
- Management Engineer
- Materials Reclamation Officer
- Methods Analyst
- Motion Picture Distribution Officer

- Pay Clerk Specialist
- Ship's Service Officer
- Supply Corps
- War Production Board Officer

BANKING

- Commercial Banking Officer
- Contract Termination Officer
- Price Adjustment Board

CHEMISTRY

- Chemical Warfare

ENGINEERING

- Advanced Base
- Ammunition Handling Officer
- Anti-Submarine Officer
- Aviation Engineering Officer
- Beneficial Suggestion Officer
- Billet Analysis Officer
- Cartographic Engineer
- Construction Battalion Officer
- Degaussing Officer
- Diesel Engineering
- Engine Type Specialist
- Engineering Officer
 - Amphibious
 - Aviation
 - CincPac
 - Diesel
 - Mine Warfare
 - Submarines
- Fire Control
- Gyro-Compass
- Harbor Defense
- Hydrographic Officer
- Junior Engineering Officer
 - Auxiliaries
 - Destroyer Escorts
 - Destroyers
 - Large Ships
 - Submarines
- Mine Assembly

Mine Depot Officer
Oil Rehabilitation
Oil Terminal Officer
Ordnance
Patent Solicitor
Petroleum Inspection Officer
Pre-Radar
Procurement Expediting Officer
Production Expeditor
Project Engineer Officer
Public Works Officer
Radio Maintenance
Safety Engineer Officer
Salvage
Ship Repair Officer
Special Devices Officer
Submarines
War Production Board Officer

FIRE FIGHTING

Fire Fighting Duty Officer

HOTEL AND RESTAURANT EXPERIENCE

Bachelor Officer Quarters Officer
Hotel Manager

INSTRUCTION, TEACHING, AND EDUCATIONAL ADMINISTRATION, ETC.

Air Combat Information Officer
Anti-Submarine Officer
Communications
Company Officer
Curriculum Construction Officer
Educational Services Officer
Gunnery Officer (Aviation)
Instructor Training Officer
Naval Academy Instructor
Navy College Training Supervisor
Pre-Flight Academic Instruction
Prison Officer
Recognition
Rifle Training Officer
Senior Administrative Officer
Special Devices Officer
Teachers and Coordinators of Audio Visual Aids
Test Construction Officer
Training Aids Distribution Officer
Training Film Utilization Officer
Training Officer for Drafted Workers
Vocational Training Officer

JOURNALISM

Air Combat Information Officer
Aviation Training Program
Curriculum Construction Officer
Motion Picture Script Writer
Photo Science Laboratory Officer
Printing Officer

LAW

Air Combat Information Officer
Communications
Contract Termination Officer
Patent Attorney
Patent Solicitor

RESTRICTED

Procurement Legal Officer
War Production Board Officer
Tactical Radar

LABOR RELATIONS

Armed Guard
Incentive Division
Industrial Relations Officer
Labor Relations Officer
Labor Supply Officer

MEDICAL

Veterans Administration
Venereal Disease Control Officer

PERSONNEL

Advanced Base
Anti-Submarine Officer
Armed Guard
Beneficial Suggestion Officer
Billet Analysis Officer
Classification Officer
Company Officer
District Civilian Personnel Officer
Industrial Relations Officer
Job Analysis and Evaluation Officer
Labor Relations Officer
Labor Supply Officer
Management Engineer
Methods Analyst
Personnel Officer OP&M
Personnel Analyst
Psychologist
Ship's Service Officer
Shore Patrol Officer

PHOTOGRAPHY

Photographic Officer
Photo Science Laboratory Officer

POST OFFICE

Postal Liaison Officer
Post Office Inspector

RADIO

Air Combat Information Officer
Aviation Communication Officer
Fighter Direction Officer
Harbor Defense
Incentive Division
Radio Maintenance

RELIGION

Chaplain

SHIPPING

Ammunition Handling Officer
Materials Handling Officer
Packaging Officer

TRANSPORTATION

Beachmaster
Domestic Transportation Officer
Net Defense
Port Director Officer
Tire Maintenance Officer

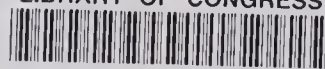
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